

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

ATOTECH USA INC.

and

ATOTECH DEUTSCHLAND
GMBH

Plaintiffs,

v.

MacDERMID INC.,

Defendant.

Civil Action No. 05-5517 (FSH)

**ATOTECH'S RESPONSE TO MACDERMID'S
STATEMENT OF UNDISPUTED MATERIAL FACTS**

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**ATOTECH'S RESPONSE TO MACDERMID'S
STATEMENT OF UNDISPUTED MATERIAL FACTS**

Pursuant to Local Rule 56.1 plaintiffs Atotech USA Inc. and Atotech Deutschland GmbH (collectively "Atotech") hereby respond to the defendant MacDermid, Inc.'s Statement of Undisputed Material Facts.

I. THE PARTIES

1. The plaintiff, Atotech USA Inc., is a Delaware corporation with a principal place of business in South Carolina. (Comp., ¶1.)

Admitted.

2. Atotech USA Inc. only engages in business in the United States. (Ex. 44, p. 20.)

Atotech objects to the statement in paragraph 2 as overbroad. Atotech admits that Atotech USA runs both a general metal finishing electroplating business and the printed circuit board businesses in the United States. (Ex. 44, p. 20.)

3. The plaintiff, Atotech Deutschland GmbH, is a German corporation with a principal place of business in Berlin, Germany. (Comp., ¶2.)

Admitted.

4. Atotech Deutschland GmbH only engages in business in Germany. (Ex. 44, p. 22-23.)

Atotech objects to the statement contained in paragraph 4. As indicated in the passage cited by the Defendant, Atotech Deutschland GmbH licenses intellectual property rights to Atotech USA. In addition, at times there are intercompany sales from Atotech Deutschland GmbH to Atotech USA. (Ex. 44, p. 22-23.)

5. The defendant, MacDermid, Inc. ("MacDermid"), is a Connecticut corporation with a headquarters in Denver, Colorado and a principal place of business in Waterbury, Connecticut. (Affidavit of J. Cordani, ¶ 6.)

Admitted.

6. MacDermid is a specialty chemical company engaged in the development, manufacture and sale of a broad range of chemical products, including chemical products used in various electroplating processes. (*Id.*, ¶ 7.)

Admitted.

7. MacDermid operates exclusively within the United States, and has done so for over 80 years. (*Id.*, ¶ 8.)

Atotech admits that the Defendant operates within the United States, but Atotech has no first-hand knowledge that the Defendant operates *exclusively* in the United States and has done so for over 80 years.

8. On March 26, 2005, one of Atotech's patents, U.S. Patent No. 4,588,481 ("the '481 patent"), expired. (Ex. 8; Answer, ¶8.)

Admitted.

9. Soon thereafter, MacDermid began selling the accused process, ChromKlad 2500. (Affidavit of J. Cordani, ¶9.)

Atotech objects to the statement in paragraph 9 in that the term “soon thereafter” is a vague, non-factual characterization. Subject to this objection, Atotech admits that MacDermid has sold the accused process Chromlad 2500.

II. OVERVIEW OF THE TECHNOLOGY

Atotech objects generally to this section II, Overview of the Technology, in that it is vague and overbroad. The scope of Atotech’s patent rights will be determined by the appropriate interpretation and application of the patent claims at issue, and not based on any summary or other characterization of the field of technology. Subject to this general objection, Atotech responds as follows.

10. The technology at issue in this case is hard chromium electroplating.

Atotech admits that this case generally involves hard chromium plating.

11. Hard chromium electroplating occurs when a direct electrical current is introduced into a hexavalent chromium plating solution, or “plating bath.”

Atotech admits that hard chromium electroplating may occur when a direct electrical current is introduced into a hexavalent chromium plating solution, or “plating bath.”

12. The direct current creates a chemical change in the plating solution that causes chromium to be deposited onto a metal substrate.

Atotech admits that a direct current may create a chemical change in the plating solution that may cause chromium to be deposited onto a metal substrate.

13. Hard chromium deposits are extremely wear and corrosion resistant, and therefore, are used to increase the service life of functional parts, such as shocks, struts, aircraft landing gear and hydraulic shafts.

Admitted.

14. There are three basic aspects of hard chromium electroplating: (1) the plating bath chemistry, (2) the equipment, and (3) the operating conditions.

Atotech objects to the statement in paragraph 14 in that the phrase “basic aspects” constitutes a non-factual characterization. Subject to this objection, Atotech admits that hard chromium plating may include: (1) the plating bath chemistry, (2) the equipment, and (3) the operating conditions.

A. Plating Bath Chemistry

15. The plating baths can be grouped into three categories: (1) conventional (or classical), (2) mixed catalyst, and (3) high efficiency, etch free. (Ex. 42, pp. 148-49.)

Atotech admits that the statement in paragraph 15 represents one potential grouping of plating baths. According to Atotech’s technical expert, some people group plating baths into two categories. (Ex. 42, pp. 149-50.)

16. A conventional bath consists of chromic acid and sulfuric acid as the essential ingredients. (Ex. 11, Col. 1, L.65; Ex. 42, p. 148.)

Atotech objects to the statement in paragraph 16 in its use of the term “consists” in that it is a term of art with a special meaning in patent law. Subject to this objection, Atotech admits that a conventional plating bath contains chromic acid, sulfuric acid, and water. (Ex. 42, p. 149.)

17. The chromic acid provides the source of chromium and the sulfuric acid acts as the “catalyst” that promotes the deposition of chromium onto the metal substrate during electroplating. (Ex. 8, Col. 1, L.30.)

Atotech objects to the statement in paragraph 17 in that the cited patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, the cited passage states: “Functional hexavalent chromium plating baths containing chromic acid and sulfate as a catalyst generally permit the deposition of chromium metal on the basic metal.” (Ex. 8 at Col. 1, lines 30-34.)

18. Conventional baths have been known since the 1920’s. (Ex. 47, pp. 28-29.)

Admitted.

19. Only about 12 to 16% of the electrical energy introduced into a conventional plating bath is utilized to deposit chromium onto the substrate. (Ex. 8, Col. 1, L 30.)

Atotech objects to the statement in paragraph 19 in that the cited patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, the cited passage states: “Functional hexavalent chromium plating baths containing chromic acid and sulfate as a catalyst generally permit the deposition of chromium metal on the basic metal at cathode efficiencies of between 12% and 16% at temperature between about 52° C to 68° C. and at current densities of from about 30 to about 50 a.s.d.” (Ex. 8 at Col. 1, lines 30-36.)

20. A mixed catalyst bath consists of chromic acid, sulfuric acid and a source of fluoride ions. (Id., Col. 1, L 37; Ex. 42, pp. 149-50.)

Atotech objects to the statement in paragraph 20 in its use of the term “consists” in that it is a term of art with a specific meaning in patent law. Subject to the objection, Atotech admits that a mixed catalyst bath may contain chromic acid, sulfuric acid, and a source of fluoride ions. (Ex. 8 at col. 1, lines 37-38; Ex. 42, pp. 149-50.)

21. As the name suggests, both the sulfuric acid and the fluoride ions act as “catalysts” in the mixed catalyst bath. (Ex. 8, Col. 1., L 37; Ex. 42, pp. 149-50.)

Atotech objects to the statement in paragraph 21 in its use of the phrase “As the name suggests” insofar as the phrase constitutes a non-factual characterization. Subject to the objection, Atotech admits that a mixed catalyst bath has a secondary catalyst that is a compound that delivers fluoride ions into the bath. (Ex. 42, p. 150.)

22. Mixed catalyst baths have been known since the 1940’s. (Ex. 47, p. 29.)

Atotech admits that mixed catalyst baths have been known since the 1940s “or so,” indicating that the stated date was intended to be an estimate. (Ex. 47, p. 29.)

23. A mixed catalyst bath has greater efficiency when compared to a conventional bath. (Ex. 8, Col. 1, L. 38-40.)

Admitted.

24. Specifically, in a mixed catalyst process, approximately 22 to 26% of the electrical energy is utilized to deposit chromium onto the substrate. (Id.)

Atotech objects to the statement in paragraph 24 in that the cited patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, the cited passage states: “Mixed catalyst chromic acid plating baths containing both sulfate and fluoride ions

generally allow the plating of chromium at higher rates and at cathode efficiencies of between 22% and 26%.” (Ex. 8 at Col. 1, lines 37-40.)

25. A mixed catalyst process produces undesirable etching of the unplated surface at areas of low current density. This is referred to as “low current density etching.” (Id., Col. 1., L. 40-45.)

Atotech objects to the statement in paragraph 25 in that the cited patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, the cited passage states: “The presence of fluoride ions in the bath, however, causes etching of ferrous based materials when the cathode current density is too low to deposit chromium metal, usually below about 5 a.s.d. in fluoride containing baths. This phenomenon is referred to as ‘low current density etching’.” (Ex. 8 at Col. 1, lines 40-45.)

26. The high efficiency, etch free bath consists of: (1) chromic acid, (2) sulfuric acid, and (3) an alkyl sulfonic acid. (Ex. 42, p. 150.)

Atotech objects to the statement in paragraph 26 in its use of the term “consists” in that it is a term of art with a specific meaning in patent law. Subject to the objection, Atotech admits that a high efficiency, etch free bath may contain chromic acid, sulfuric acid, and an alkyl sulfonic acid or salt thereof. (Ex. 42, p. 150.)

27. The use of an alkyl sulfonic acid in combination with chromic and sulfuric acid was first described in a patent application filed by a German company named LPW-Chemie, GmbH (“LPW”), in January 1984. (Ex. 38, ¶14.)

Atotech disputes the statement in paragraph 27. The Defendant relies on paragraph 14 of Ex. 38, which are Atotech’s responses to the Defendant’s First Requests For Admission. At paragraph 14, the Defendant requested that Atotech admit: “On January 1, 1984, LPW filed Patent Application No. 34 02 554.5 filed with the German Patent Office.” Subject to various objections (which are incorporated here by reference), Atotech responded that: “based on the face of the Patent Application No. 34 02 554.5 filed with the German Patent Office, Atotech admits the request.” Atotech, therefore, incorporates here by reference its response to the Defendant’s request for admission and otherwise disputes the statement in paragraph 27.

28. The LPW patent application was, then, published in four countries on the following dates:

<u>Country</u>	<u>Date</u>
i. Germany (DE 34 02 554)	Aug. 8, 1985
ii. France (FR 2 558 852)	Aug. 2, 1985
iii. Sweden (SE 8 405 681)	July 27, 1985
iv. Great Britain (GB 2 153 387)	Aug. 21, 1985

(Ex. 38, ¶¶15-17; Ex. 2; Ex. 3; Ex. 4; Ex. 5.)¹

Atotech admits that statement in paragraph 28.

29. The alkyl sulfonic acids disclosed in GB 2 153 387 (the “UK LPW application”) included:

- i. Methane Sulphonic Acid (“MSA”)
- ii. Ethane Sulphonic Acid (“ESA”)
- iii. Methane Disulphonic Acid (“MDSA”)
- iv. 1, 2 Ethane Disulphonic Acid (“EDSA”)

(Ex. 2, p.1 L. 98-100.)

Atotech objects to the statement in paragraph 29 in that the cited publication is a public record, and therefore any summary thereof constitutes a non-factual characterization. Atotech further objects to MacDermid’s ambiguous and vague use of the term of art “alkyl sulfonic acids.” Subject to the objection, the cited passage states: “Methanesulphonic acid, ethanesulphonic acid, methanedisulphonic acid, 1,2-ethanedisulphonic acid, salts of the above-mentioned acids, and methanesulphochloride are particularly suitable.” (Ex. 2, at p. 1, lines 98-102.)

30. As the name suggests, the high efficiency, etch free process has a cathode efficiency higher than a conventional bath, but without the drawback of

¹ The German, French, Swedish and UK LPW patent applications will hereinafter be referred to collectively as the “LPW patent applications”.

the low current density etching associated with a mixed catalyst bath. (Id., p.1 L.71-84.)

Atotech objects to the statement in paragraph 30 in its use of the phrase “As the name suggests” insofar as the phrase constitutes a non-factual characterization. Atotech further objects to the statement in paragraph 30 in that the cited publication is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to these objections, the cited passage states: “Compared with this it is the object of the invention to provide a process for depositing with high cathodic current efficiency on metal alloys, particularly on iron alloys (steel) and on aluminum alloys, from an aqueous bath that contains chromic and sulfuric acids, a hard chromium layer, this being without the danger of troublesome etching of the existing surfaces and without the bath composition changing by volatility of important bath components. Preferably, the aim should be to achieve a working cathodic current efficiency of over 20%.”

B. Electroplating Equipment

31. Hard chromium electroplating also requires the use of certain equipment. (Ex. 42, pp. 174-75, 179-80.)

Atotech disputes the statement in paragraph 31. Although at the cited passages deponent Frank Altmayer references various forms of exemplary

equipment used in hard chromium electroplating, he never testified that the process “requires the use of certain equipment.” At most, he testified that the equipment would need to include various categorical systems, such as a heating/cooling system, an agitation system, an anode or series of anodes, in some cases a rack, a ventilation system, a scrubbing system, a masking system, and perhaps others. (Ex. 42 at pp. 174-75, 179-80.)

32. This equipment includes a source of direct current, typically a rectifier, that converts alternating current to direct current. (Id.)

Atotech incorporates here by reference its response to paragraph 31. Subject to such response, Atotech admits that Altmayer testified that he would use a rectifier to get a direct current into a hard chromium plating bath. (Ex. 42 at p. 179.)

33. The following diagram, taken from the report of Atotech’s expert, depicts the electroplating equipment:

[Drawing not included.]

Admitted.

34. As depicted, the equipment also includes two types of electrodes, an anode and a cathode.

Admitted.

35. As depicted, both electrodes are connected to the rectifier and placed into the plating bath.

Admitted.

36. As depicted, the anode is the positively charged electrode and the cathode is the negatively charged electrode.

Admitted.

37. As depicted, the positively charged hexavalent chromium ions in the plating bath are attracted to the negatively charged cathode.

Admitted.

38. As depicted, the hexavalent chromium ions (Cr^{+6}), which lack the six electrons needed to exist as chromium metal (Cr), combine with free electrons at the cathode and become deposited on the cathode.

Atotech objects to the statement in paragraph 38 insofar as the diagram does not specifically depict the interaction of the hexavalent chromium ions with free electrons on the cathode. Atotech admits, however, that the hexavalent chromium ions (Cr^{+6}), which lack the six electrons needed to exist as chromium metal (Cr), combine with free electrons at the cathode and become deposited on the cathode.

39. As depicted, the cathode is the workpiece or metal substrate to be plated.

Admitted.

40. The use of an anode is essential to hard chrome electroplating. (Ex. 42, p. 19; Ex. 41, p. 277-78.)

Admitted.

41. People skilled in the art of hard chromium electroplating have used anodes made of lead or lead alloys from the 1920's until the present. (Ex. 41, pp. 274-75; Ex. 42, pp. 27-28.)

Atotech objects to the statement in paragraph 41 in its use of the phrase "people skilled in the art" in that such phrase is a term of art with a specific meaning in patent law, and therefore is not a factual assertion. Subject to these objections, Atotech admits that lead or lead alloy anodes have been used since essentially the inception of hard chromium electroplating. (Ex. 41 at p. 275; Ex. 42 at 28.)

42. Atotech's expert has stated: "Historically, and even today, the vast majority of hard chrome platers use lead or lead alloy with antimony or tin for hard chromium plating." (Ex. 42, p. 28.)

Admitted.

43. According to Atotech's expert, lead anodes have been used for almost 100 years for "very good reasons." (Id., pp. 29-30.)

Atotech objects to the statement in paragraph 43 in that it mischaracterizes the cited deposition testimony of Frank Almayer. The entire exchange was as follows:

A. Yes, there is [sic] some good reasons to use lead.

Q. And there is [sic] some very good reasons, right?

A. I said there is [sic] good reasons, you say “very good.” I mean, we’re not going to argue about semantics. It could be good, it could be – in some cases it’s very good, in other cases it’s horrible. So I would just say very good.

Q. Okay. That’s what I asked you. That’s good. I’m glad you agree.

(Ex. 42 at pp. 29-30.)

44. These “very good reasons” include:

- i. During plating trivalent chromium (CR^{+3}) is created and, if allowed to build, CR^{+3} impedes the plating process. Lead anodes oxidize CR^{+3} back to Cr^{+6} and controls the build up of CR^{+3} . (Id., pp. 30-36.)
- ii. Lead anodes can be easily formed and shaped to allow uniform spacing between the anode and cathode. (Id., pp. 36-39.)
- iii. Lead anodes have good resistance to chemical attack. (Id., pp. 39-40.)

Atotech incorporates by reference its response to the statement in paragraph

43. Subject to such response, Antotech admits that Frank Altmayer testified that these are reasons to use a lead anode.

45. With respect to lead or lead alloy anodes, the written specification of U.S. Patent No. 5,176,813 (“the ‘813 patent”) and U.S. Patent No. 5,453,175 (“the ‘175 patent”)² state:

In this specification, the term “lead anode” is intended to define plating-bath anodes formed of lead or lead alloys commonly containing varying percentages of tin or antimony, either alone or in combination with other metals. Such materials are well known to those skilled in the art, and as such form no part of this invention.³

(Ex. 11, Col. 2, L. 9-16; Ex. 12, Col. 2, L. 12-16, 21-22.) (Emphasis added.)

Atotech admits that the referenced passage is quoted correctly from the Patents-in-Suit. Atotech, however, objects to the underlining emphasis in that such emphasis constitutes a non-factual characterization. In addition, Atotech disputes the statement of footnote 3 in that it improperly implies that the underlined sentence (including the emphasis) is part of the “definition” of a lead anode.

C. Operating Conditions

46. The operator of the electroplating process can control certain aspects of the process and one such aspect is the amount of electricity introduced into the plating bath.

Atotech objects to the statement in paragraph 46 in that the phrase “control certain aspects” is vague. Atotech admits that under certain circumstances, an

² The ‘813 patent and the ‘175 patent hereinafter will be referred to collectively as “the Patents-in-Suit.”

³ The term “lead anode” will be used hereinafter as defined in the specification of the Patents-in-Suit.

operator may be able to control the amount of electricity introduced into the plating bath.

47. The amount of electricity is measured by the current density of each electrode. (Ex. 42, p. 164.)

Atotech disputes the statement in paragraph 47 in that the amount of electricity is measured by the current density at the *cathode*. (Ex. 42, p. 164, specifically at lines 23-25.)

48. Current density is the magnitude of the electric current per cross-sectional area, which is measured in amperes per square decimeter. This is referred to as A/dm^2 or a.s.d. (Ex. 41, pp. 33-34.)

Atotech admits that current density is electrical current per area and is measured in amperes per square decimeter (a.s.d.). (Ex. 42 at 164.) The citation in paragraph 48 is incorrect.

49. Another aspect of the process that can be controlled by the operator is the temperature of the plating bath. (Ex. 47, p. 164.)

Atotech admits that, under certain circumstances, an operator may be able to control the temperature of the plating bath.

III. THE ADVENT OF HIGH EFFICIENCY, ETCH FREE BATHS

50. As noted on January 26, 1984, LPW filed a patent application with the German Patent Office that disclosed an electroplating process resulting in hard

chromium deposits with a high cathode efficiency without the low current density etching associated with mixed catalyst systems. (Ex. 5; Ex. 6.)

Atotech objects to the statement in paragraph 50 in that the LPW German Patent Application is a public record, and therefore any summary thereof constitutes a non-factual characterization.

51. Subsequently, LPW filed patent applications in France, Sweden and Great Britain, claiming priority to the German patent application. (Ex. 38, ¶¶15-17, 95; Ex. 2; Ex. 3; Ex. 4.)

Admitted.

52. The UK LPW application discloses:

Bath Chemistry

<u>Chemical</u>	<u>Concentration</u>	<u>Citation</u>
Chromic Acid (CrO_3)	150 to 400 g/l and preferably 200 g/l	Page 1, Lines 10-14
Sulfuric Acid (H_2SO_4)	2 to 15 g/l and Preferably 1.2% in relation to CrO_3	Page 1, Lines 10-14
Alkyl Sulfonic Acid (MSA, ESA, MDSA or EDSA)	more than 0.5 g/l	Page 1, Lines 84-103

Operating Parameters

<u>Parameter</u>	<u>Range</u>	<u>Citation</u>
Bath Temperature	20 to 70° C	Page 1, Lines 95-96
Current Density	15 to 100 A/dm ²	Page 1, Lines 96-97
Cathode Efficiency	Preferably over 20%	Page 1, Lines 81-83

(Ex. 2; Ex. 42, pp. 161-64.)

Atotech objects to the statement in paragraph 52 in that the LPW UK Patent Application is a public record. Subject to the objection, Atotech admits that the LPW UK Patent Application discloses the referenced information.

53. More particularly, Example 5 of the UK LPW application discloses an electroplating process using MDSA as the alkyl sulfonic acid, as follows:

Bath Chemistry

<u>Chemical</u>	<u>Concentration</u>	<u>Citation</u>
Chromic Acid (CrO ₃)	300 g/l	Page 2, Line 77
Sulfuric Acid (H ₂ SO ₄)	4 g/l	Page 2, Lines 77-78
MDSA	3 g/l	Page 2, Lines 78

Operating Parameters

<u>Parameter</u>	<u>Range</u>	<u>Citation</u>
Bath Temperature	55° C	Page 2, Lines 48; 76 -77
Current Density	50 A/dm ²	Page 2, Lines 49; 76 -77
Cathode Efficiency	25.7%	Page 2, Lines 75-76

(Ex. 2; Ex. 42, pp. 165-66; 174.)

Atotech objects to the statement in paragraph 53 in that the LPW UK Patent Application is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, Atotech admits that the LPW UK Patent Application discloses the referenced information.

54. Examples 6, 7 and 8 of the UK LPW application also disclose specific plating bath chemistries that utilize MDSA as the alkyl sulfonic acid. (Ex. 2, pp. 2-3, L 80-130, 1-19; Ex. 42, pp. 199-200.)

Atotech objects to the statement in paragraph 54 in that the LPW UK Patent Application is a public record, and therefore any summary thereof constitutes a non-factual characterization. Atotech further objects to the ambiguous term “alkyl sulfonic acid,” which has multiple definitions in the art. Subject to the objection, Atotech admits that the LPW UK Patent Application discloses MDSA.

IV. NEWBY'S USE OF LPW'S PLATING SOLUTION IN THE '481 RESEARCH

Atotech objects to this heading in that it is argumentative and constitutes a mischaracterization of the facts in this case.

55. Kenneth Newby ("Newby") is the named inventor of the Patents-in-Suit. (Ex. 11; Ex. 12.)

Admitted.

56. Newby is also a co-inventor with Hyman Chessin ("Chessin") of the '481 patent. (Ex. 8.)

Admitted.

57. Newby began working for Atotech in late November 1984. (Ex. 47, pp. 6-7.)

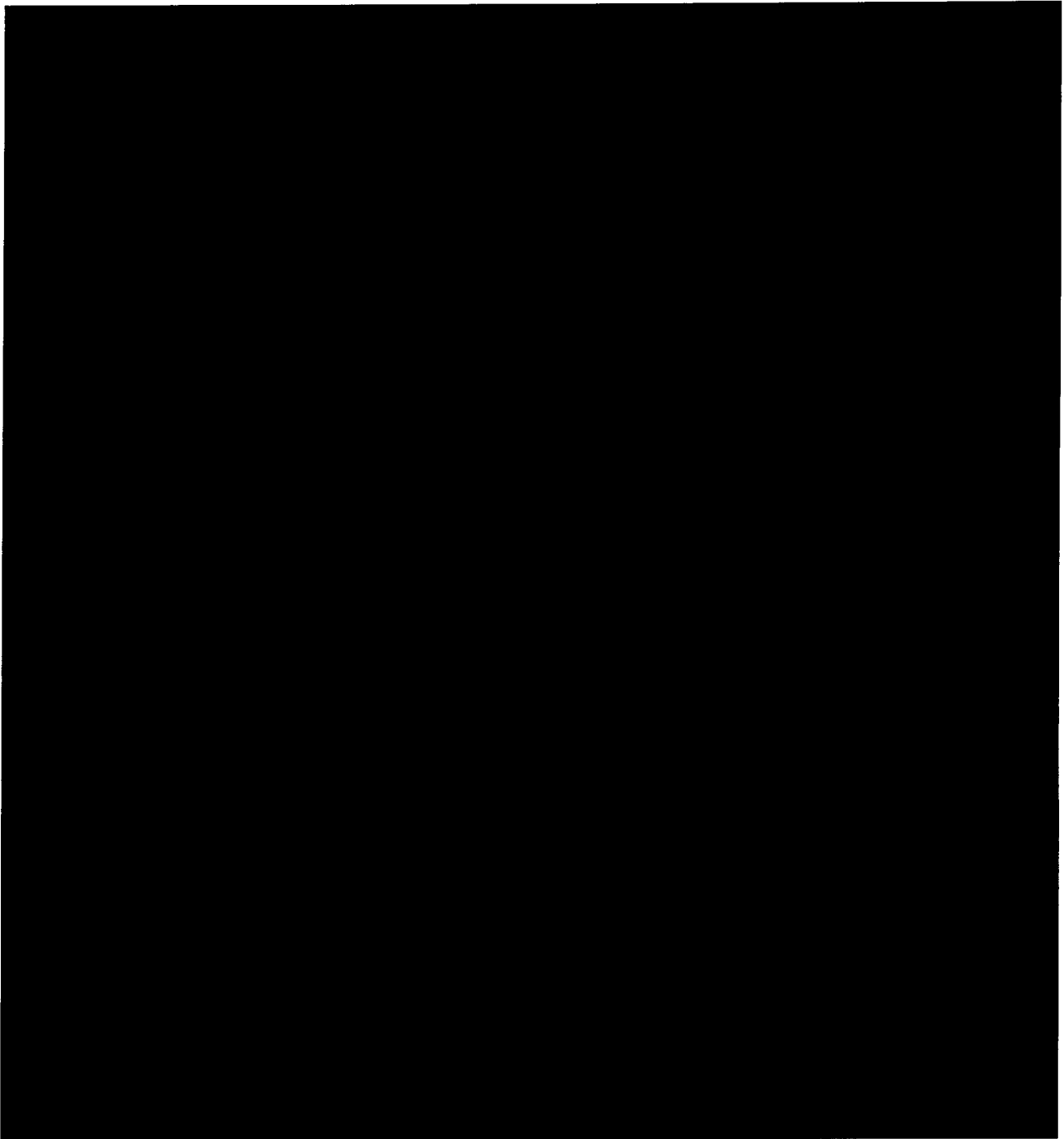
Atotech disputes the statement in paragraph 57. Newby was hired by MT Chemicals, a predecessor company, in late 1984. (Ex. 47 at p. 6.)

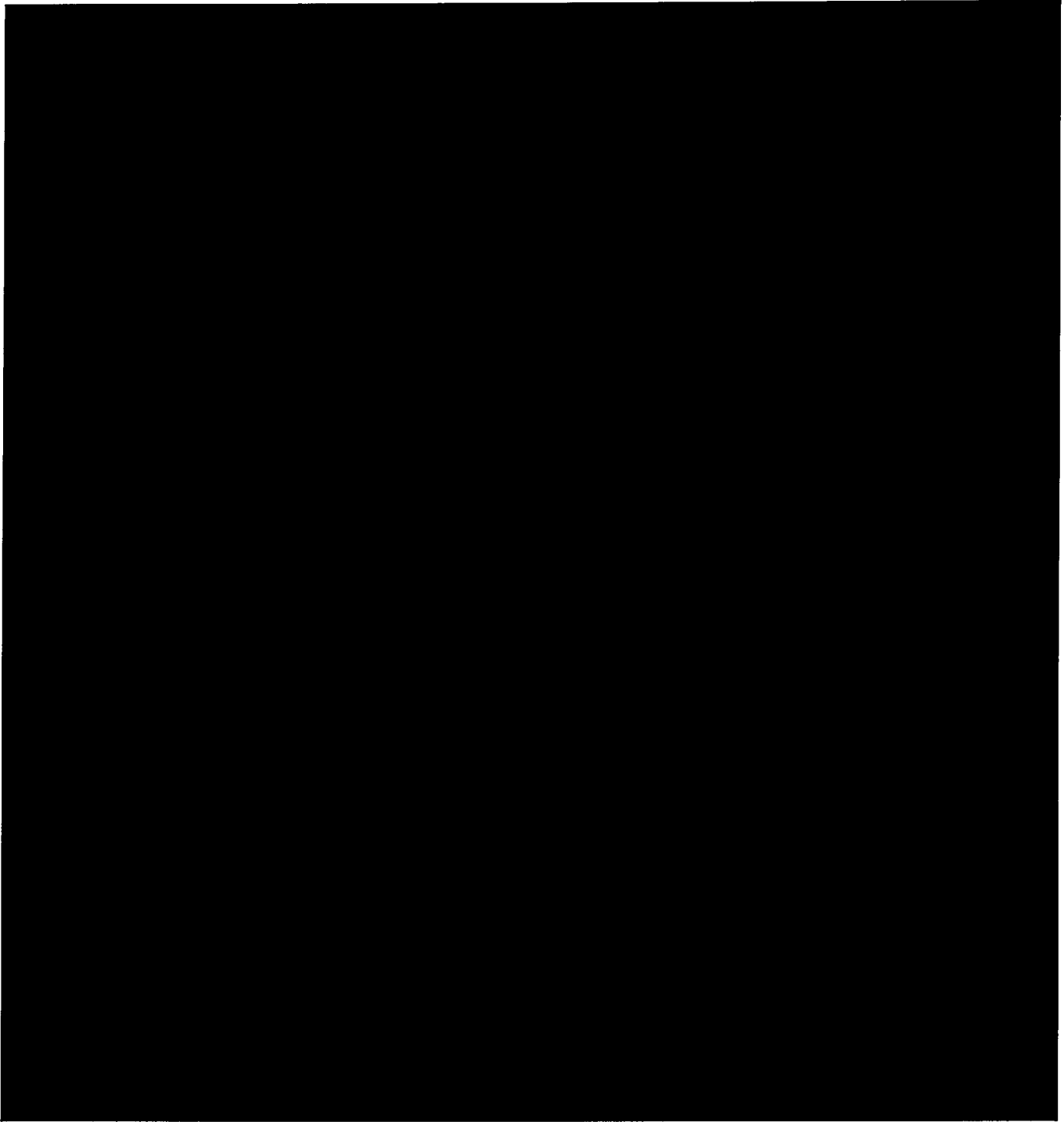
58. Before that time, Newby had no experience with hard chromium electroplating. (Id., p. 191.)

Admitted.

59. The application leading to the issuance of the '481 patent was filed on March 26, 1985. (Ex. 8.)

Admitted.





64. The '481 patent issued without Newby bringing the existence of the LPW product or the LPW patent applications to the attention of the United States Patent and Trademark Office ("USPTO"). (Ex. 8.)

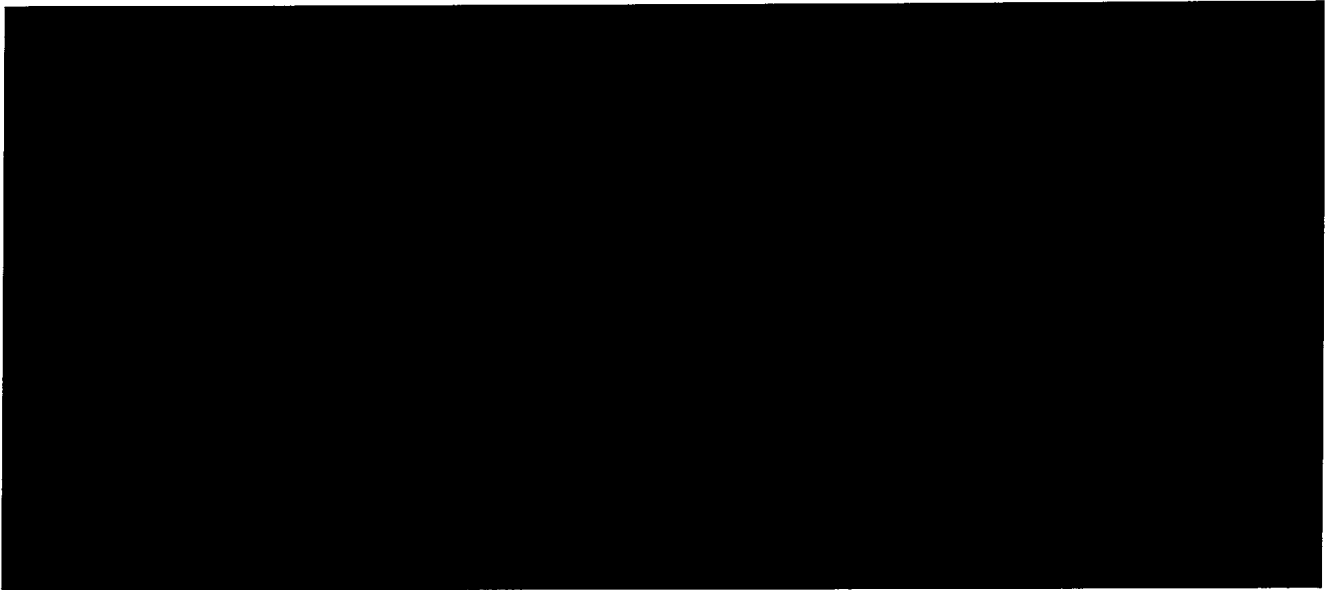
Atotech objects to the statement in paragraph 64 in that it is argumentative and constitutes a non-factual statement. Accordingly, Atotech disputes the statement in paragraph 64.

V. NEWBY'S '481 RESEARCH USING MDSA AND A LEAD ANODE

Atotech objects to this heading in that it is argumentative and constitutes a mischaracterization of the facts in this case.

65. Newby utilized a lead anode at all times during the research that led to the filing of the application leading to the issuance of the '481 Patent. (Ex. 47, pp. 23, 25.)

Atotech objects to the statement in paragraph 65 in that the phrase "research that led to the filing of the application leading to the issuance of the '481 Patent" constitutes a non-factual characterization. Subject to the objection, Atotech admits that Newby used a lead anode during the experiments referenced during his deposition at Ex. 47, pages 23 and 25.



67. During the '481 research, Newby performed tests with plating baths that included MDSA and EDSA as the alkyl sulfonic acid, and did so with a lead anode. (Ex. 29; Ex. 41, pp. 264-67.)

Atotech objects to the statement in paragraph 67 in that the phrase "During the '481 research" constitutes a non-factual characterization. Subject to the objection, Atotech admits that Newby performed tests with plating baths that included MDSA and EDSA as the alkyl sulfonic acid. (Ex. 29; Ex. 41, pp. 264-67.)

VI. THE '481 PATENT

68. The '481 Patent issued on May 13, 1986, and disclosed a process for the electroplating of chromium for functional purposes on basis metals from hexavalent chromium plating baths at high efficiencies and at high temperatures without low current density etching. (Ex. 8.)

Atotech objects to the statement in paragraph 68 in that the '481 Patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to the objection, Atotech admits that the '481 patent issued on May 13, 1986.

69. More particularly, the '481 patent disclosed:

<u>Bath Chemistry</u>		
<u>Chemical</u>	<u>Concentration</u>	<u>Citation</u>
Chromic Acid	150 to 450 g/l and preferably 200 g/l to 300 g/l	Table I, Column 2
Sulfate	1 to 5 g/l and preferably 1.5 to 3.5 g/l	Table I, Column 2
Alkyl Sulfonic Acid (MSA, ESA, MDSA or EDS)	1 to 18 g/l and preferably 1.5 to 12 g/l	Table I, Column 2

<u>Operating Parameters</u>		
<u>Parameter</u>	<u>Range</u>	<u>Citation</u>
Bath Temperature	45 to 70° C and Preferably, 50 to 60° C	Table II, Column 2
Current Density	11.6 to 230 a.s.d. and preferably, 30 to 100 a.s.d	Table II, Column 2
Cathode Efficiency	Of at least 22%	Column 2, Line 19

(Ex. 8.)

Atotech objects to the statement in paragraph 69 in that the ‘481 Patent is a public record, and therefore any summary thereof constitutes a non-factual characterization. Atotech further objects in that the referenced “Operating Parameters” are contained in Table I, not Table II as cited. Subject to the objection, Atotech admits that the ‘481 patent discloses the referenced information.

70. The ‘481 Patent describes a hard chromium electroplating process, which requires an anode to work. (Ex. 41, pp. 277-79.)

Atotech objects to the statement in paragraph 70 in that the ‘481 Patent is a public record, and therefore any summary thereof constitutes a non-factual

characterization. Atotech further objects to the statement in paragraph 70 in that it constitutes a non-factual characterization generally.

71. The '481 Patent, however, does not include the word "anode." (Ex. 8; Ex. 41, pp. 277-78.)

Atotech objects to the statement in paragraph 71 in that the use of the term "however" constitutes a non-factual characterization insofar as the term may be interpreted as implying impropriety, which Atotech would dispute. Subject to the objection, Atotech admits that the '481 Patent does not include the word "anode".

72. Chessin testified that the '481 patent did not describe the anode because the use of a lead anode was such a "generality that one didn't worry about it." (Ex. 43, p. 37.)

Atotech objects to the statement in paragraph 72 in that the '481 Patent is not referenced at page 37 of Ex. 43, the only page submitted. Subject to the objection, Atotech admits that Chessin testified at deposition: "It [the use of lead or lead alloy anodes] was such a generality that one didn't worry about it." (Ex. 43, p. 37.)

73. Chessin also testified that the use of lead anodes was "rife" and "what we used." (Id.)

Atotech admits that Chessin testified at deposition: "It means that lead and lead alloys were rife. . . . That's what we used." (Ex. 43, p. 37.)

74. Atotech's Rule 30(b)(6) representative agreed that when the '481 patent issued, the use of lead anodes was well known to those skilled in the art. (Ex. 41, p. 277.)

Atotech objects to the statement in paragraph 74 in that it calls for a non-factual legal conclusion. Subject to the objection, Atotech admits that its Rule 30(b)(6) representative testified at deposition: "The use of lead anodes is well known." (Ex. 41 at p. 227, line 7.)

75. Atotech's Rule 30(b)(6) representative also agreed with an excerpt from the chapter written by Chessin in the book Metals Handbook, Ninth Edition (Copyright 1982). (Id., pp. 281-83.)

Atotech objects to the statement in paragraph 75 in that it is vague and ambiguous and appears to call for a non-factual characterization

76. Specifically, Atotech agreed with the following excerpt: "In contrast to other plating baths, which use soluble anodes to supply the bath with a large part of the metal ion being plated, chromium plated baths are operated with insoluble lead alloy anodes." (Id.)

Atotech admits that its Rule 30(b)(6) representative testified at deposition: "Yes, in the context that that statement is written." (Ex. 41 at p. 282, lines 8-9.)

VII. COMMERCIALIZATION OF THE '481 PATENT

77. In or around 1986-1987, Atotech commercialized a hard chromium electroplating process sold under the tradename HEEF 25. (Ex. 44, pp. 38-39.)

Admitted, except that the product tradename HEEF 25 is not referenced in the passage cited by the Defendant.

78. Initially, Atotech selected MSA as the alkyl sulfonic acid for HEEF 25. (Id., pp. 52-53.)

Atotech admits that: "The early HEEF technology involved the use of MSA." (Ex. 44 at p. 52, line 25 to page 53, line 1.)

79. Atotech recommended that its customers use lead anodes in the HEEF 25 process. (Ex. 24, p. 507.)

Atotech admits that the brochure constituting Ex. 24 states: "Unichrome 7% tin-lead alloy anodes are recommended." (Ex. 24 at bates number 507.)

80. According to Newby, industrial applications of the '481 patent used lead anodes. (Ex. 47, p. 32.)

Atotech objects to the statement in paragraph 80. Newby testified at deposition:

Q. When you did test it industrially, you used lead anodes, is that right?

A. With this chemistry, which was MSA based, a catalyst, methane sulfonic acid based, all platers, all platers we tested it at,

already had lead anodes in their tank. . . . So to the extent we were testing it in a facility that had lead anodes, they did have lead anodes, yes, it was tested under those conditions. We didn't put lead anodes in special or any special type of lead anode, we used what was there.

(Ex. 47, p. 32.)

81. The use of HEEF 25 caused customers' lead anodes to corrode at a high rate. (Ex. 41, p. 288; Ex. 44, 52-53.)

Atotech objects to the statement in paragraph 81 as vague and ambiguous. Atotech admits that the use of HEEF 25 containing MSA caused corrosion of the lead anodes. (Ex. 41 at p. 288; Ex. 43 at pp. 52-53.)

VIII. NEWBY'S RESEARCH ATTEMPTING TO SOLVE THE CORROSION PROBLEM

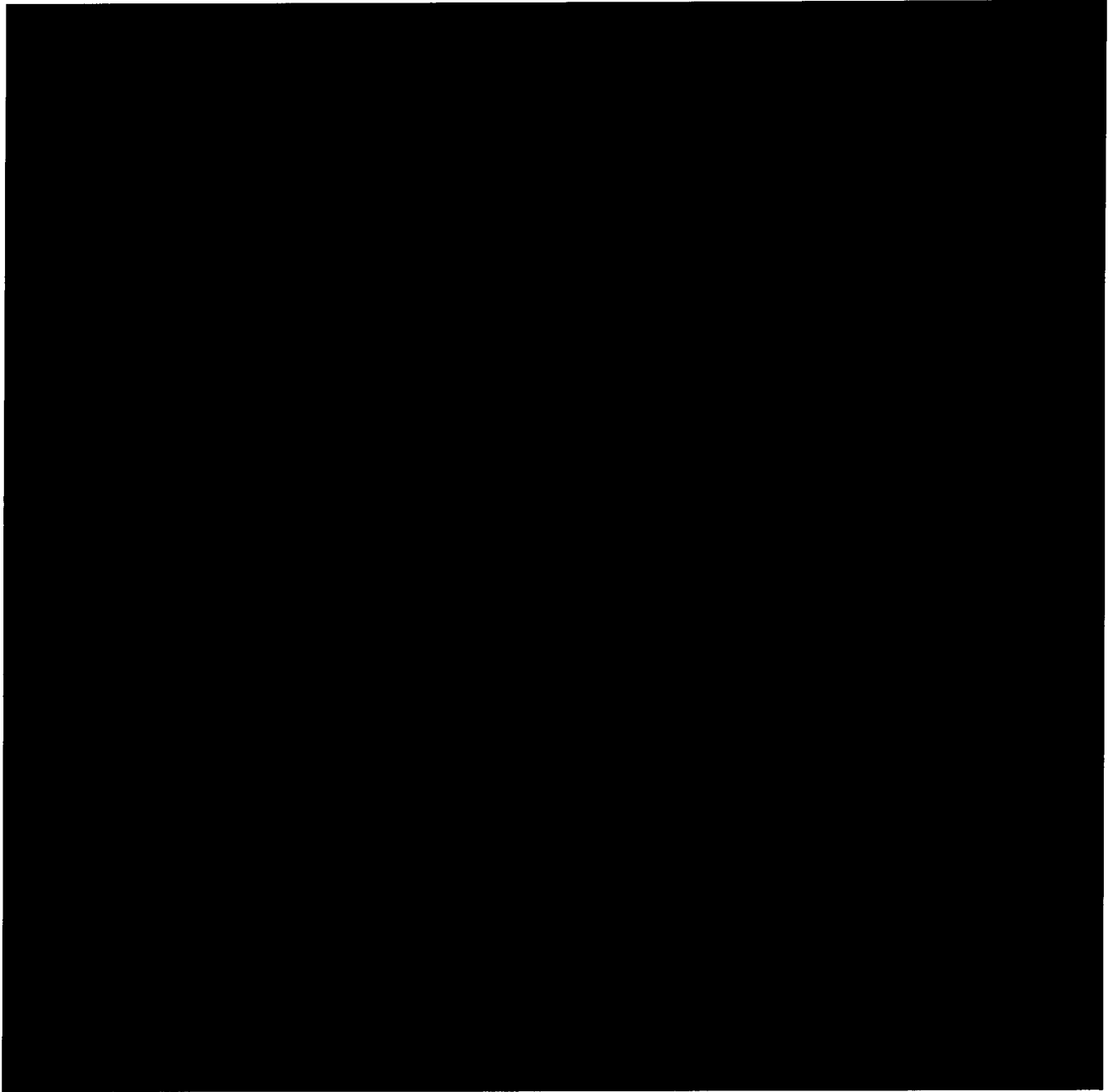
82. In January 1988, Newby determined that substituting MDSA for MSA reduced the amount of lead anode corrosion. (Ex. 44, pp. 52-53.)

Atotech disputes the statement in paragraph 82 in that Newby did not testify as to the date of the discovery that substituting MDSA for MSA reduced the amount of lead anode corrosion. (Ex. 44, pp. 52-53.)

83. Newby claimed that substituting MDSA for MSA was inventive and entitled him to patent protection beyond that already granted by the '481 patent. This led to the filing and prosecution of the Patents-in-Suit. (Ex. 11; Ex. 12.)

Atotech objects to the statement in paragraph 83 in that the Patents-in-Suit are public records, and therefore any summaries thereof constitute non-factual

characterizations. Atotech further objects to the statement in paragraph 83 in that it constitutes a non-factual characterization generally and calls for a legal conclusion.





IX. PROSECUTION OF THE PATENTS-IN-SUIT

A. The Parent Application

86. On November 6, 1989, one of Atotech's patent attorneys, Stanley A. Marcus ("Marcus"), filed U.S. Application No. 431,963 ("the '963 application"), entitled "Protection of Lead Containing Anodes During Chromium Electroplating," with the USPTO. (Ex. 38, ¶56; Ex. 13, pp. A4-A24.)

Admitted, except that the filing date is referenced only on the first page of Ex. 13.

87. The '963 application listed Newby as the inventor. (Ex. 13, p. A4.)

Admitted.

88. The '963 application did not include an Information Disclosure Statement ("IDS"). (Id.)

Atotech objects to the statement in paragraph 88 in that implies improperly that an Information Disclosure Statement (IDS) is considered part of a patent application, which it is not. Nor is there any absolute requirement that an IDS be

filed with a patent application or during the prosecution of a patent application.

Subject to the objections, Atotech admits the statement in paragraph 88.

89. No IDS was ever filed with the USPTO during the prosecution of the Patents-in-Suit. (Ex. 13; Ex. 14; Ex. 15; Ex. 16.)

Atotech objects to the statement in paragraph 89 insofar as it implies that there is an absolute requirement that an IDS be filed during the prosecution of a patent application. Subject to the objections, Atotech admits the statement in paragraph 89.

90. On April 13, 1990, the USPTO issued an Office Action, rejecting all 52 claims of the '963 application under 35 U.S.C. 102 and 103. The Examiner relied upon the '481 patent as the primary reference. (Ex. 38, ¶58; Ex. 13, pp. C1-C6.)

Atotech objects to the statement in paragraph 90 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations.

91. In the April 13, 1990 Office Action, the Examiner wrote:

Further Newly [sic] is a coinventor of the primary reference and is in perfect position to affirm or deny that lead anodes were used in Chessin et al. [481 patent] and that lead anodes are used in industrial applications of the Chessin et al. process. Applicant is reminded of his duty of candor in dealings with the PTO.

(Ex. 13, p. C4.)

Atotech admits that the Examiner wrote this passage in the Office Action of April 13, 1990, but Atotech disputes the Examiner's statement to the extent it asserts, or can be interpreted as implying, that Newby violated the duty of candor to the Patent Office.

92. In an Amendment dated October 10, 1990, Newby responded to the April 13, 1990 Office Action, in part, as follows:

In comment upon the Examiner's observation that Applicant herein was a co-inventor with Chessin in the primary reference, and thus ". . . in a perfect position to affirm or deny that lead anodes were used in Chessin et al", there is no dispute over that point; lead anodes, as defined in the specification in this case, are, and for many years have been, used in conventional plating processes, and are so well known that one skilled in the art thinks of them only when a problem arises.

(Id., p. B4.)

Admitted.

B. The '813 File Wrapper

93. On November 5, 1990, Robert Henn ("Henn"), an attorney for Atotech, filed U.S. Application No. 609,276 ("the '276 application"), which was a Continuation-in-Part of the '963 application. (Ex. 38, ¶63; Ex. 14, pp. A10-A11.)

Admitted.

94. The '276 application listed Marcus as the "corresponding agent." (Ex. 14, p. A11.)

Atotech objects to the statement in paragraph 94 in its use of the phrase "corresponding agent" as vague and ambiguous. Subject to this objection, Atotech admits that Marcus' address is provided at page A11 of Ex. 14.

95. In a December 11, 1991, Office Action, the USPTO rejected all claims as unpatentable under Sections 102 and 103. (Ex. 38, ¶65.)

Atotech objects to the statement in paragraph 95 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations.

96. Specifically, the USPTO rejected the product claims found in claims 27 to 48 as unpatentable under Section 102(b) in view of the '481 patent. (Ex. 14, p. G2.)

Atotech objects to the statement in paragraph 96 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations.

97. The USPTO also rejected the process claims found in claims 1 to 26 as unpatentable under Section 103 in view of the '481 patent and a secondary reference (Dennis) describing the use of lead anodes in chromium plating. (Id., pp. G3-G4.)

Atotech objects to the statement in paragraph 97 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations.

98. The Examiner reasoned:

Chessin et al differs from the present invention in that Chessin et al does not disclose the anode material, however, as taught by Dennis et al, lead anodes are commonly used for plating chromium from chromic acid baths. It would have been obvious and well within the skill of ordinary artisan to use conventional lead anodes with Chessin et al chromium plating bath. No unobvious or unexpected results are seen.

(Id.)

Atotech admits that this passage appears in the Office Action of December 11, 1991, but Atotech disputes the substance of the Examiner's comments.

99. On May 9, 1992, Applicant filed an Amendment responding to the Office Action dated December 11, 1991. (Ex. 38, ¶66.)

Atotech objects to the statement in paragraph 99 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations.

100. In the May 9, 1992 Amendment, the Applicant represented that his invention of using MDSA that resulted in reduced anode corrosion constituted a “*desideratum*” in the industry. (Ex. 14, p. H3.)

Atotech objects to the statement in paragraph 100 in that the documents that make up the prosecution histories of the Patents-in-Suit are public records, and therefore any summaries of such documents constitute non-factual characterizations. Subject to the objection, Atotech admits that the following is stated in the Amendment dated March (not May) 9, 1992: “Applicant specifically traverses the Examiner’s stated position that ‘[n]o obvious or unexpected results are seen’; the substantial reduction of anodic corrosion in chromium electroplating at the time of Applicant’s discovery described in this specification was a *desideratum* in the industry.” (Ex. 14 at H3.)

101. In May 1992, Newby and his attorney traveled to the USTPO and personally visited with the Examiner. (Id., p. 11.)

Atotech admits that on May 1, 1992, Newby and his attorney participated in an interview with the Examiner, as is permitted during patent prosecution. (Ex. 14, at 11.)

102. Newby displayed two anodes: one from “prior art baths” and one from applicant’s “invention.” (Ex. 38, ¶74.)

Subject to the objections made in response to paragraph 74 of Ex. 38, Atotech admits the statement in paragraph 102.

103. The non-corroded lead anode shown to the U.S. Examiner was used with a plating bath that included chromic acid, sulfuric acid and MDSA. (Id., ¶78.)

Subject to the objections made in response to paragraph 78 of Ex. 38, Atotech admits the statement in paragraph 103.

104. The “Examiner Interview Summary Record” states:

Applicant described in depth development of the technology involved and the problems of the prior art and unexpected results involved. 132 affidavit with comparative results will overcome 103 rejection of process claims. Composition claims, however, are still rejected under 102(b).

(Ex. 14, p. 11.)

Admitted.

105. On July 17, 1992, Applicant filed an Amendment with a Rule 132 Affidavit. (Id., pp. K1-K7.)

Admitted.

106. In the Rule 132 Affidavit, Newby represented:

Thus, conventional [lead] anodes used with the high-energy-efficiency plating catalyst of the present invention last at least seven, and up to more than ten, times longer than those used with the catalyst of the prior art

(Id. p. K6, ¶12.)

Atotech objects to statement of paragraph 106 for the insertion of the word “lead”, which does not appear even in proximity to the quoted passage. Subject to the objection, and insofar as the affidavit further states: “conventional, electroplating anodes; i.e., lead, alloyed with six percent by weight of antimony” (see ¶ 6), Atotech admits the statement in paragraph 106.

107. On August 3, 1992, the USPTO issued a Notice of Allowability of the process claims found in claims 1-26. (Id., p. L1.)

Admitted.

108. The ‘813 Patent issued on January 5, 1993. (Ex. 38, ¶1.)

Admitted.

C. The ‘987 Application

109. On December 31, 1992, Newby filed U.S. Application No. 998,987 (“the ‘987 Application”) as a continuation-in-part of the ‘276 Application. (Id., ¶81.)

Admitted.

110. On August 31, 1994, the ‘987 Application was abandoned. (Id., ¶82.)

Admitted.

D. The ‘175 File Wrapper

111. On June 30, 1994, Newby filed U.S. Application No. 268,476 (“the ‘476 Application”) as a continuation of the ‘987 Application. (Id., ¶83.)

Admitted.

112. The ‘175 Patent issued on September 26, 1995. (Id., ¶85.)

Admitted.

X. INVALIDITY OF THE CLAIMS OF THE PATENTS-IN-SUIT

Atotech objects to this heading in that it is argumentative and constitutes a non-factual characterization and/or legal conclusion that asserts or implies that the Patents-in-Suit are invalid, which Atotech disputes.

113. MacDermid contends, *inter alia*, that the claims of the Patents-in-Suit are anticipated and/or obvious in view of the prior art; specifically: (1) the LPW applications; (2) German patent application 3,625,187 A (“the LPW anode application”) and (3) the ‘481 Patent.

Atotech objects to the statement in paragraph 113 in that it constitutes or contains non-factual allegations and/or legal conclusions. Atotech disputes the Defendant’s contentions that the claims of the Patents-in-Suit are invalid.

114. An invalidity chart to assist the Court’s analysis of MacDermid’s invalidity arguments is attached as Exhibit 17 and incorporated herein.

Atotech objects to the statement in paragraph 114, and the incorporated Exhibit 17, in that they constitute or contain non-factual allegations and/or legal conclusions. Atotech disputes the Defendant’s contentions that the claims of the Patents-in-Suit are invalid.

XI. ATOTECH’S INEQUITABLE CONDUCT AND UNCLEAN HANDS

Atotech objects to this heading in that it is argumentative and constitutes a non-factual characterization and/or legal conclusion that asserts or implies that Atotech engaged in inequitable conduct or has unclean hands, which Atotech disputes.

A. Atotech's Knowledge of the LPW Patent Applications

115. An English translation of FR 2 558 852 ("the French LPW application") was in Atotech's files and produced by Atotech in discovery. (Ex. 1; Ex. 38, ¶93.)

Subject to the objections made in response to paragraph 93 of Ex. 38, Atotech admits that Ex. 1 appears to be an English translation of FR 2 558 852.

116. Atotech's Rule 30(b)(6) representative testified that it was highly likely that Atotech had this English translation of the French LPW application within a year or two of August 2, 1985. (Ex. 41, pp. 301-02.)

Atotech disputes the statement in paragraph 116, further stating that its representative testified: "Probably within a year or two we knew about it. . . . I would say it's highly likely that we did. I'm not saying that we did, because I don't know the date when we got this. It doesn't say on it." (Ex. 41 at p. 302, lines 5-11.)

117. Atotech's Rule 30(b)(6) representative further testified that Atotech also would have been aware of the UK LPW application within a relatively short period of time after it became public knowledge on August 21, 1985. (*Id.*, pp. 302-03.)

Admitted, subject to the objections asserted during the deposition relating to this statement.

118. Atotech also admitted in an Interrogatory Response that the individuals associated with prosecuting the Patents-in-Suit first became aware of the LPW patent applications between August 21, 1985 and mid-year 1987. (Ex. 39, ¶¶ 1-2.)

Atotech objects to the statement in paragraph 118 in that the use of the phrase “also admitted” constitutes a non-factual characterization. Subject to Atotech’s additional objections asserted in response to Interrogatory Nos. 1 and 2 in Ex. 39, Atotech admits individuals associated with prosecuting the Patents-in-Suit became aware of the “LPW-Chemie Reference” (as defined by the Defendant in its interrogatories) sometime between August 21, 1985 and the middle of 1987.

119. Atotech, however, never provided any English translation to the USPTO at any time during the prosecution of the Patents-in-Suit. (Ex. 11; Ex. 12.)

Atotech objects to the statement in paragraph 119 in that the documents that make up the prosecution histories of the Patents-in-Suit are public, and therefore any summaries of such documents constitute non-factual characterizations.

Atotech further objects to the use of the term “however” as constituting a non-factual characterization that implies wrong-doing, which Atotech disputes.

Atotech further objects to the phrase “any English translation” as vague in that it lacks any specific context or reference point. Subject to these objections, and interpreting “any English translation” as a reference to translations of any of the

LPW foreign language patent applications, Atotech admits that no such translations were provided to the USPTO during the prosecution of the Patents-in-Suit.

120. Additionally, Atotech never disclosed the existence of any of the LPW patent applications to the USPTO during prosecution of the Patents-in-Suit. (Ex. 11; Ex. 12; Ex. 38, ¶124.)

Atotech objects to the use of the term “Additionally” as constituting a non-factual characterization in that the term incorrectly presumes certain previous responses. Subject to this objection and the objections made at paragraph 124 of Ex. 38, Atotech admits that it never disclosed the existence of the LPW patent applications to the USPTO during prosecution of the Patents-in-Suit.

B. Atotech’s Knowledge of the Materiality of the LPW Patent Applications

Atotech objects to this heading in that it is argumentative and constitutes a non-factual characterization and/or legal conclusion that asserts or implies that the LPW patent applications are material, which Atotech disputes.

The Foreign Counterpart Application to the ‘481 Patent

121. Atotech filed an application with the European Patent Office (“EPO”) that claimed priority to the filing date of the ‘481 application. (Ex. 38, ¶88.)

Admitted.

122. On February 3, 1987, the EPO directed a European Search report to Atotech, which listed the French LPW patent application. (Ex. 38, ¶94; Ex. 18.)

Admitted.

123. The European Search report characterized the French LPW application as “particularly relevant if taken alone” and identified “the whole document” as “relevant.” (Ex. 18, p. 2.)

Atotech objects to the statement in paragraph 123 in that the European search report is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to this objection, Atotech admits that in the search report, the European Examiner classified the French LPW application as an “X” reference, indicating the Examiner’s belief that the document was “particularly relevant if taken alone.” Atotech disputes the Examiner’s characterization.

124. On July 28, 1988, the EPO issued an Office Action, rejecting the claims of the foreign counterpart application of the ‘481 Patent, in part, because the subject matter was not new in view of FR-A-2 558 852. (Ex. 19; Ex. 38, ¶96; Ex. 41, pp. 307-308.)

Atotech objects to the statement in paragraph 124 in that the referenced European Office Action is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to this objection and to the

objections asserted at paragraph 96 of Ex. 38, Atotech admits the statement in paragraph 124, but disputes the Examiner's conclusion.

The Foreign Counterpart Application to the Patents-in-Suit

125. On November 6, 1990, Atotech filed a counterpart application with the EPO, claiming priority to the '963 Application, which is the parent application for the Patents-in-Suit. (Ex. 38, ¶109.)

Admitted.

126. Atotech's counterpart application was assigned Application No. 90917257.9 and EP Publication No. 0452471. (Id., ¶110.)

Admitted.

127. Attorney Henn was listed as agent for Atotech with respect to the EPO counterpart application. (Id., ¶112.)

Admitted.

128. On September 14, 1993, the EPO directed a communication to Atotech enclosing a Supplementary European Search report. (Ex. 20.)

Atotech objects to the statement in paragraph 128 in that the referenced European communication is a public record, and therefore any summary thereof constitutes a non-factual characterization. Atotech further objects in that the date indicated on Ex. 20 is September 30 (not 14), 1993. Subject to these objections, Atotech admits the statement in paragraph 128.

129. This Search report identified the French LPW patent application as “Particularly relevant if taken alone.” (Ex. 20, p. 2.)

Atotech objects to the statement in paragraph 129 in that the referenced European search report is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to this objection, Atotech admits that in the search report, the European Examiner classified the French LPW application as an “X” reference, indicating the Examiner’s belief that the document was “particularly relevant if taken alone.” Furthermore the Examiner cited specific passages: page 3, lines 9-10 and page 6, lines 5-8. Atotech disputes the Examiner’s characterization.

130. Attorney Marcus testified that the practice was for such reports to be directed to the Atotech patent attorney responsible for the U.S. Patent application. (Ex. 45, pp. 56, 104.)

Admitted.

131. On May 3, 1994, the EPO issued a rejection relying, in part, on the French LPW patent application as an invalidating prior art reference. (Ex. 38, ¶115.)

Atotech objects to the statement in paragraph 131 in that the referenced European Office Action is a public record, and therefore any summary thereof constitutes a non-factual characterization. Subject to this objection and to the

objections asserted at paragraph 115 of Ex. 38, Atotech admits the statement in paragraph 131, but disputes the European Examiner's conclusion.

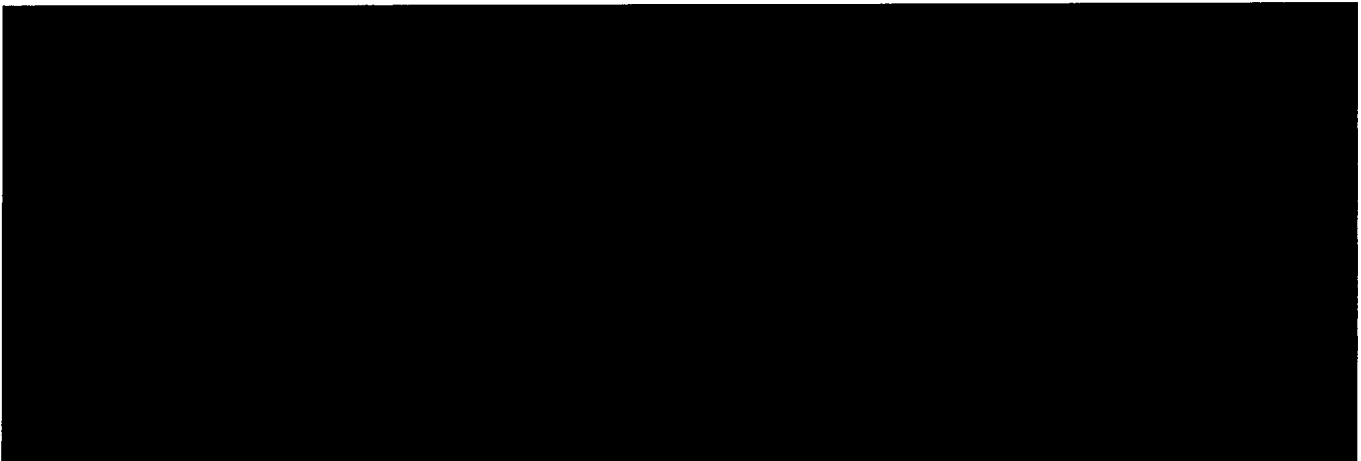
132. In an Affidavit submitted to the EPO, Newby averred:

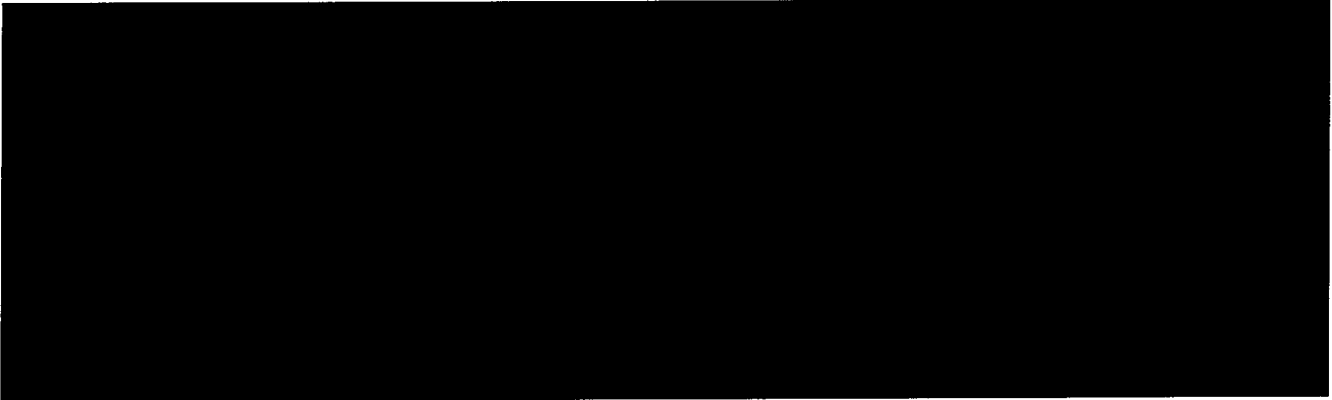
Neither D1 [the '481 patent] nor [the UK LPW patent application] describes the experimental conditions in detail. I see that the current densities and temperatures were reported, but the anode material is not mentioned ... However I can state that an efficiency test of this kind would normally be carried out in a small vessel, say 1 or 2 litres' capacity, using a lead anode and with a steel test piece (e.g. 3/8" diameter steel rods). Certainly the D1 were done in this way and I believe that the D2 experiments would have been generally similar.

(Ex. 21, p. 5.) (Emphasis added.)

Admitted, except that Atotech objects to the underlined emphasis as constituting a non-factual characterization.

Atotech Agreements Concerning the LPW Patent Applications





135. Effective January 1, 1992, Atotech entered into a "HEEF 25 Agreement" with W. Canning Materials Ltd. ("Canning"). (Ex. 23; Ex. 41, pp. 312-17.)

Admitted.

136. Atotech executed the HEEF 25 Agreement on August 19, 1992. (Ex. 23.)

Admitted.

137. In the HEEF 25 Agreement, Atotech agreed to supply MDSA to Canning. (Ex. 45, pp. 78-79; Ex. 41, pp. 312-17.)

Atotech objects to the statement in paragraph 137 in that any summary of the Agreement constitutes a non-factual characterization. Subject to this objection, Atotech incorporates here by reference section 1(b) and 2 of that Agreement.

138. In exchange, Canning agreed to pay Atotech \$70.00 per kilogram for the MDSA. (Ex. 45, pp. 79-80; Ex. 41, pp. 312-17.)

Atotech objects to the statement in paragraph 138 in that any summary of the Agreement constitutes a non-factual characterization. Subject to this objection, Atotech incorporates here, by reference, schedule 2 of the HEEF 25 Agreement.

139. In addition, Atotech granted Canning certain patent rights so that Canning could sell chromium electroplating products with the MDSA catalyst to customers in Great Britain, Japan and South Korea. (Ex. 45, pp. 80-81; Ex. 41, pp. 312-17.)

Atotech objects to the statement in paragraph 139 in that any summary of the Agreement constitutes a non-factual characterization. Subject to this objection, Atotech incorporates here, by reference, section 3 of the HEEF 25 Agreement. Atotech further objects to the use of the phrase “in addition” as constituting a non-factual characterization in that the term incorrectly presumes certain previous responses.

140. Notably, in this regard, Atotech granted Canning rights in the UK LPW patent application. (Ex. 45, pp. 80, 82-83; Ex. 41, pp. 312-17.)

Atotech objects to the statement in paragraph 140 in that any summary of the Agreement constitutes a non-factual characterization. Subject to this objection, Atotech incorporates here, by reference, section 3 of the HEEF 25 Agreement.

Atotech further objects to the use of the term “notably” as constituting a non-factual characterization.

141. In exchange for the patent rights, Canning agreed to pay Atotech a “running royalty” of 15% of the Selling Price of Products sold in Great Britain, Japan and South Korea, which contained MDSA. (Ex. 23; Ex. 45, p. 83; Ex. 41, pp. 312-17.)

Atotech objects to the statement in paragraph 141 in that any summary of the Agreement constitutes a non-factual characterization. Subject to this objection, Atotech incorporates here, by reference, section 4.1 of the HEEF 25 Agreement.

142. Therefore, at least as of 1992, Atotech was aware that the LPW UK patent application was material to chromium plating processes that utilized MDSA as a catalyst because:

- i. It was being paid \$70 per kilogram for MDSA, and
- ii. It was being paid a 15% royalty on all products containing MDSA.

(Ex. 23; Ex. 45, p. 83; Ex. 41, pp. 312-17.)

Atotech disputes the statement in paragraph 142, and further objects to the statement in that it constitutes a non-factual characterization and/or legal conclusion.

143. The HEEF 25 Agreement contains the notation “071092SAM.PAT” in the top right hand corner of each page. (Ex. 23; Ex. 45, p. 76.)

Admitted.

144. This notation reflects that Attorney Marcus drafted the document and that the last time he worked on the document was July 10, 1992. (Ex. 45, p. 76.)

Admitted.

145. Attorney Marcus was the head of Atotech's patent department at the time. (Id., pp. 58, 76.)

Admitted with the assumption that the reference to "that time" means July 10, 1992.

146. Attorney Marcus had traveled to England with John Kinne, an Atotech executive, to negotiate the HEEF 25 Agreement. (Id., p. 78.)

Atotech disputes the statement in paragraph 146. Marcus testified that he had only a "vague recollection" of traveling to England with John Kinne. (Ex. 45 at p. 78, lines 5 and 13.)

147. While working on the HEEF 25 Agreement in 1992, the Patents-in-Suit had not yet issued. (Id., p. 77.)

Admitted.

148. In its interrogatory answers, Atotech identified Attorney Marcus as one of the individuals associated with the filing and prosecution of the Patents-in-Suit. (Ex. 39, ¶1.)

Admitted.

149. Attorney Marcus signed and filed on November 6, 1989, the parent application that lead to the issuance of the Patents-in-Suit. (Ex. 45, pp. 57-60.)

Atotech disputes to the statement in paragraph 149. Atotech admits that Marcus signed the transmittal form that transmitted the referenced application to the Patent Office. (Ex. 45 at pp. 57-60.)

150. Attorney Marcus was listed as the “corresponding agent” with respect to the Patents-in-Suit and was listed on the face sheet of both Patents-In-Suit. (Id., p. 59.)

Atotech objects to the statement in paragraph 150 as vague and ambiguous in its use of the term “corresponding agent”. Subject to this objection, Atotech admits that Marcus’ address is listed on the face sheet of both Patents-in-Suit.

151. Attorney Marcus supervised Attorney Henn, who also was involved in prosecuting the applications leading to the issuance of the ‘813 Patent. (Id., pp. 57-58.)

Admitted.

152. Attorney Marcus was the only attorney responsible for prosecuting the patent application leading to the issuance of the ‘175 patent. (Id., pp. 62-64.)

Admitted.

C. Non-Cumulative Nature of the LPW Patent Applications

Atotech objects to this heading in that it is argumentative and constitutes a non-factual characterization and/or legal conclusion that asserts or implies that the LPW patent applications are non-cumulative, which Atotech disputes.

153. The '481 patent identifies MSA as the "preferred" catalyst. (Ex. 8, Col. 3, L. 14-17.)

Atotech disputes the statement in paragraph 153. The '481 patent states: "The preferred bath compositions of the invention are those in which the organic sulfonic acid is methyl sulfonic acid which provide plating efficiencies in the range of 22-28%." (Ex. 8 at col. 3, lines 14-17.)

154. The LPW patent applications contain examples wherein four out of eight examples (Nos. 5-8), detail beneficial properties of using specific MDSA chemistries. (Ex 1; Ex. 2.)

Atotech objects to the statement in paragraph 154 in that the LPW patent applications are public records, and therefore any summaries thereof constitute non-factual characterization. Atotech disputes the statement in paragraph 154 and further objects to the statement in that it constitutes a non-factual characterization generally.

155. The '481 patent does not disclose any specific formulas that include MDSA. (Ex. 8.)

Admitted.

156. The LPW patent applications disclose three specific formulas for MDSA plating baths described in four examples. (Ex. 1; Ex. 2.)

Atotech objects to the statement in paragraph 156 in that the LPW patent applications are public records, and therefore any summaries thereof constitute non-factual characterizations. Subject to this objection, Atotech admits that the LPW patent applications disclose bath chemistries that include MDSA.

157. The '481 patent does not detail any attributes associated with plating bath chemistries that include MDSA. (Ex. 8.)

Admitted.

158. The LPW patent applications detail beneficial attributes of MDSA plating baths. (Ex.1; Ex. 2.)

Atotech disputes the statement in paragraph 158 and further objects to the statement in that it constitutes a non-factual characterization of a public record.

159. Atotech's English translation of the LPW patent applications discloses that a MDSA plating bath produces micro-cracked chromium deposits. (Ex.1, No. 5.)

Atotech objects to the statement in paragraph 159 in that the LPW patent applications are public records, and therefore any summaries thereof constitute

non-factual characterizations. Subject to the objection, Atotech admits that

Example No. 5 states: "The deposits showed fine fissures."

160. Micro-cracked deposits are a beneficial attribute of hard chromium deposits. (Ex. 25; Ex. 47, pp. 83-84.)

Atotech objects to the statement in paragraph 160 in that it constitutes a non-factual characterization. Atotech admits that for the cited reference, Newby testified at deposition:

We have found that the more of them [microcracks] there are, tends to be the shorter the depth of them. The stress builds faster and cracks more frequently. So the pathway is more discontinuous.

There is also another aspect that the surface of the cracked area is larger. So, the corrosion current density is current, spread out over a bigger area. The current density, which is going to be the rate of corrosion, is lower.

We find historically one of the benefits of HEEF type chemistry is it has more microcracks than does mixed catalyst, and it has better corrosion resistance. We believe those are related.

(Ex. 47 at pp. 82-83.)

161. Atotech's English translation of the LPW patent applications also discloses a "test" concerning "corrosion or chemical attack on steel test pieces." (Ex. 1, pp. 339-40.)

Atotech disputes the statement in paragraph 161.

162. The MDSA plating bath (Electrolyte 2) has the lowest corrosion rate of 0.0 – 0.5 mg/dm² per hour. (Id., p. 334.)

Atotech admits that Ex. 1 states that Electrolyte 2 had a measured weight loss of 0.0-0.5 mg/dm² per hour (albeit at page 344, not 334).

163. In Example 6, the “steel test piece” is the cathode. (Id.)

Admitted (although the support is at page 344, not 334).

164. Atotech’s expert confirmed that in an electroplating process, the anode and the cathode are the two “electrodes” that are immersed in the plating solution and that it is the plating solution that “corrodes,” “erodes” or “chemically attacks” the electrodes. (Ex. 42, pp. 170-73.)

Admitted. (Ex. 42 at p. 173.)

165. Atotech’s English translation of the LPW patent applications also discloses that a MDSA plating bath had a low corrosion rate for aluminum alloy test pieces. (Ex. 1, p. 334, ¶5.)

Atotech disputes the statement in paragraph 165. Atotech also objects to the statement in that there is no page 334, paragraph 5 (nor even a page 344, paragraph 5) in Ex. 1. To the extent the statement may refer to example (5) on page 344, there is no reference to aluminum alloy test pieces in that paragraph.

166. Atotech's English translation of the LPW patent applications further discloses that with respect to a MDSA plating bath that was left standing at 50° C for three months, there was "no measurable loss of sulfonate" and "no reduction of the current efficiency." (Ex. 1, p. 346.)

Atotech objects to the statement in paragraph 159 in that the LPW patent applications are public records, and therefore any summaries thereof constitute non-factual characterizations. Subject to the objection, Atotech admits the statement in paragraph 166.

167. Atotech licensed the UK LPW application to Canning as part of a supply agreement for MDSA. (Ex. 23.)

Atotech objects to the statement in paragraph 167 in that it asserts a legal conclusion, and the Agreement contained at Ex. 23 speaks for itself.

168. The HEEF 25 Agreement was negotiated and signed in 1992 after Newby discovered in January 1988, that MDSA had the beneficial attribute of reducing the corrosion of lead anodes and during the prosecution of the Patents-in-Suit. (Ex. 30; Ex. 41, pp. 216-17.)

Atotech objects to the statement in paragraph 168 in that it is argumentative and contains non-factual characterizations and/or legal conclusions which Atotech disputes. Subject to the objection, Atotech admits that the HEEF 25 Agreement was signed after January 1988.

169. Both Atotech and Canning knew that MDSA had this beneficial attribute when they negotiated the HEEF 25 Agreement. (Ex. 44, pp. 63-64.)

Atotech objects to the statement in paragraph 169 in that it is argumentative and contains non-factual characterizations which Atotech disputes.

170. The '481 patent does not expressly describe the use of lead anodes. (Ex. 8.)

As previously admitted, Atotech admits that the words "lead anodes" do not appear in the '481 patent.

171. Newby testified that when reviewing the LPW patent applications, he would assume that lead anodes were used. (Ex. 47, pp. 58-61.)

Atotech disputes the statement in paragraph 171 and further states that the statement mischaracterizes the referenced deposition testimony.

172. In this regard, Newby also testified, in relevant part, as follows:

Lead anodes for the reasons that I described are universally used. They are assumed. Whether the literature commented or did not comment, unless the literature commented it wasn't that way, then as I would have read it, I would have assumed it.

(Id., p. 23.)

Atotech objects to the statement in paragraph 172 in its use of the phrase "In this regard" in that the phrase constitutes a non-factual characterization. Subject to the objection, Atotech admits that Newby testified as quoted.

173. On this issue, Atotech's expert also testified as follows:

Q: You didn't answer my question. I said would you, as someone skilled in the art back in 1985, know that you could use a lead or lead alloy anode in the process described in the Exhibit 53 [the UK LPW application]?

A. In 1985 I had the knowledge that lead as an anode could be used in electroplating hard chromium.

(Ex. 42, p. 184.)

Atotech objects to the statement in paragraph 173 in its use of the phrase "On this issue" in that the phrase constitutes a non-factual characterization.

Subject to the objection, Atotech admits that Atotech's expert testified as quoted.

D. Atotech's Duty of Candor to the USPTO

174. Attorney Marcus testified that the duty of candor requires an applicant to advise the USPTO of relevant prior art identified on an EPO search report. (Ex. 45, p. 46.)

Atotech disputes the statement in paragraph 174. Marcus testified: "I think the obligation would be to notify the U.S. patent office of relevant prior art which was not before the Examiner." (Ex. 54 at p. 46, lines 22-25.)

175. Attorney Marcus also testified that the duty of candor requires an applicant to provide to the USPTO a copy of an English translation of a relevant foreign reference. (Id., pp. 47-48.)

Atotech disputes the statement in paragraph 175. Marcus testified:

A. I think it's the same obligation that we just discussed.

Q. Which is?

A. Which is to call the attention of the examiner to that prior art if it isn't already in front of him.

(Ex. 46 at p. 47, lines 13-17.)

176. Attorney Marcus further testified that the duty of candor exists from the filing of the patent application until the patent issues. (*Id.*, pp. 42-43.)

Atotech admits that Marcus testified: "It's my understanding" that the duty of candor continues through the patent prosecution process.

177. In this matter, therefore, Atotech owed a duty of candor to the USPTO from the filing of the parent application on November 6, 1989 until the '175 patent issued on September 26, 1995. (Ex. 45, pp. 42-43, 46-48; Ex. 12, Ex. 13.)

Atotech objects that this "fact" calls for a legal conclusion.

E. Atotech's Explanation(s) for Failing to Disclose the LPW references

Atotech objects to the heading in that the phrase "Explanation(s) for Failing to Disclose" is argumentative and constitutes a non-factual characterization and/or legal conclusion in that it may be interpreted as asserting or implying wrongdoing, which Atotech disputes.

Stanley Marcus

178. Despite his involvement in drafting the HEEF 25 Agreement in 1992, Attorney Marcus has no recollection of events, and thus no explanation for why the UK LPW application was not brought to the attention of the Examiner. (Ex. 45, pp. 90-93.)

Atotech objects to the statement in paragraph 178 in that it is argumentative, constitutes a non-factual characterization and mischaracterizes Marcus' testimony. Subject to the objection, Atotech admits that Marcus testified at deposition that he does not recall the prosecution process with respect to the Patents-in-Suit. (Ex. 45 at pp. 90-93.)

179. Despite his involvement in the foreign counterpart application to the Patents-in-Suit, Attorney Marcus has no explanation for why the existence of the French LPW application was not brought to the attention of the Examiner. (Id.)

Atotech objects to the statement in paragraph 179 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes Marcus' testimony. Subject to the objection, Atotech admits that Marcus testified at deposition that he does not recall the prosecution process with respect to the Patents-in-Suit. (Ex. 45 at pp. 90-93.)

180. Similarly, Attorney Marcus has no explanation for why the English translation of the French LPW application in Atotech's files was not provided to the USPTO. (Id., pp. 98-99.)

Atotech objects to the statement in paragraph 180 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes Marcus' testimony. Subject to the objection, Atotech admits that Marcus testified at deposition that he does not recall the prosecution process with respect to the Patents-in-Suit. (Ex. 45 at pp. 90-93, 98-99.)

181. Attorney Marcus does have a recollection of advising Newby and/or Attorney Henn that they should bring a corroded anode to the personal interview with the U.S. Examiner. (Id., pp. 120-21.)

Atotech objects to the statement in paragraph 181 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes Marcus' testimony. Marcus testified that he had a "vague recollection" of discussions with Newby and/or Henn regarding the interview with the Examiner. (Ex. 45 at pp. 120-21.)

Kenneth Newby

182. Newby first testified following his lawyer's suggestive objection that the reason the LPW applications were not provided to the USPTO fell within the auspices of the attorney-client privilege. (Ex. 47, pp. 181-83.)

Atotech objects to the statement in paragraph 182 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes what occurred during the referenced deposition.

183. Newby then testified that he could not be sure who he had the conversation with, and thus, he could not recall whether the individual was an attorney. (Id.)

Atotech objects to the statement in paragraph 183 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes what occurred during the referenced deposition.

184. Newby, thereafter, testified that the LPW patent applications dealt with high cathode efficiencies without low current density etching and the Patents-in-Suit dealt with the reduction of anode corrosion and that the two topics were "very, very different, really rather unrelated topics." (Id., pp. 183-85.)

Atotech objects to the statement in paragraph 184 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes what occurred during the referenced deposition. Subject to these objections, Atotech admits that Newby testified that the LPW patent applications and the Patents-in-Suit deal with

“two very, very different, really rather unrelated topics.” (Ex. 47 at p. 185, lines 2-3.)

185. At same time, however, Newby testified that:

- a. The LPW patent applications disclosed chemistries having the same properties as those claimed in the Patents-in-Suit, (id., pp. 258-259)
- b. MDSA had not changed between 1985 and 1989, (id., pp. 223-24)
- c. MDSA had the same beneficial attributes in 1985 as it did in 1989, (id., pp. 226-27) and
- d. The use of lead anodes in hard chromium electroplating was so common that it was “assumed” unless expressly stated otherwise. (Id., p. 23.)

Atotech objects to the use of the phrase “At same [sic] time, however” in that the phrase is argumentative and constitutes a non-factual characterization. Subject to these objections, Atotech disputes that Newby testified that the LPW patent applications disclosed chemistries having the same properties as those claimed in the Patents-in-Suit. (Ex. 47 at pp. 258-59.) Atotech disputes that Newby testified that MDSA had not changed between 1985 and 1989. Newby actually testified: “Methane disulfonic acid is methane disulfonic acid.” Atotech further disputes that Newby testified that MDSA had the same beneficial attributes

in 1985 as it did in 1989. (Ex. 47 at 226-227.) The Defendant's descriptions of these passages constitute non-factual characterizations. Atotech admits that Newby testified that, with respect to the use of lead anodes in "chromium electroplating" (not *hard* chromium electroplating), "unless the literature commented it wasn't that way, then as I would read it, I would have assumed it." (Ex. 47 at p. 23, lines 9-11.)

186. Finally, Newby testified that he had no "remembrance" of how and why the LPW patent applications were not provided to the USPTO during prosecution of the Patents-in-Suit. (Id., pp. 187-88.)

Atotech objects to the use of the term "Finally" insofar as the term is argumentative and constitutes a non-factual characterization. Atotech further objects to the statement in paragraph 186 in that it is argumentative, constitutes a non-factual characterization, and mischaracterizes what occurred during the referenced deposition.

187. Moreover, in attempting to explain why he visited the U.S. Examiner with a lead anode from his “inventive” MDSA bath, without advising the Examiner that MDSA baths were described in the LPW patent applications, Newby testified, in relevant part:

“... I don’t recall what I told him and discussed with him. I recall – we were trying to obtain a patent....”

(Id., pp. 260-61.)

Atotech objects to the statement in paragraph 187 in that it is argumentative, constitutes a non-factual characterization, mischaracterizes what occurred during the referenced deposition, and quotes the deposition out of context to foster the mischaracterization of the opening assertions.

F. Atotech’s Deception with Respect to the LPW Anode Application

Atotech objects to the heading insofar as it is argumentative and constitutes a non-factual characterization that asserts wrongdoing, which Atotech disputes.

188. In the specification of the Patents-in-Suit, Newby stated:

Another attempted solution to the problem has been the investigation of materials which are resistant to attack by bath compositions containing MSA. For instance, in German application 3,625,187A, filed on Jul.25, 1986, anodes made of lead containing up to about 9% by weight of antimony or about 1% by weight of palladium, with or without small amounts of tin, silver and/or selenium are reported to show “good results” when used in functional chromium electroplating processes carried out at 55° C, with a cathodic current density in the

range of 30 to 32 amperes per square decimeter (a.s.d.) and an anodic current density of from 25 to 20 a.s.d.

(Ex. 11, Col. 2, L 29- 42; Ex. 12, Col. 2, L 34-36.)

Admitted.

189. An English translation of this LPW anode application was in Atotech's files and produced in discovery. (Ex. 7.)

Atotech objects to the phrase "this LPW anode application" as vague and ambiguous, and, to the extent understood, constituting a non-factual characterization. Subject to these objections, Atotech admits that Ex. 7 was in its files and produced during discovery.

190. The English translation was not provided to the USPTO during prosecution of the Patents-In-Suit. (Ex. 41, p. 325; Ex. 11, Ex. 12.)

Atotech objects to the phrase "The English translation" as being vague and ambiguous as to its reference. If understood as referring to the LPW German patent application, Atotech admits the statement in paragraph 190.

191. The English translation contains fax information, reflecting that it had been faxed on July 1, 1988. (Ex. 7.)

Atotech admits that Ex. 7 contains a fax transmission indication with a date of "7-1-88".

192. The fax number is a New Jersey exchange (201), and Newby's office and research facility in 1988 had a (201) exchange. (Ex. 47, p. 90.)

Admitted.

193. Newby became aware of this English translation sometime shortly after July 1, 1988. (Ex. 41, pp. 323-24.)

Admitted.

194. The English translation contains a handwritten note by Newby in the top right hand corner of the first page which states: "LPW anode patent application." (Ex. 47, pp. 90-91; Ex. 41, p. 323.)

Atotech admits that Ex. 47 contains a handwritten note by Newby in the top right hand corner of the first page which states: "LPW anode patent application."

195. The LPW anode application describes anodes that fall within the definition of "lead anode" in the specification of the Patents-In-Suit. (Ex. 47, p. 96; Ex. 7; Ex. 11; Ex. 12.)

Atotech objects to the statement in paragraph 195 in that the LPW patent applications and the Patents-in-Suit are public documents, and therefore any summaries thereof constitute non-factual characterizations. Atotech further objects to the statement in paragraph 195 in that it constitutes a legal conclusion.

196. The LPW anode application describes and claims the use of lead anodes with “hard chromium electrolytes containing alkyl sulfonic acids.” (Ex. 7, Claim 2; Ex. 47, p. 96.)

Atotech objects to the statement in paragraph 196 in that the LPW applications are public records, and therefore any summaries thereof constitute non-factual characterizations. Atotech further objects to paragraph 196 as containing legal conclusions instead of factual recitations. Subject to this objection, Atotech admits that claim 2 states “hard chromium electrolytes containing alkyl sulfonic acids.”

197. Newby admitted that the phrase “alkyl sulfonic acids” includes MSA, ESA, MDSA and EDSA. (Ex. 47, pp. 92-93.)

Atotech objects to the use of the term “admitted” insofar as the term constitutes a non-factual characterization. Subject to this objection, Atotech admits that Newby testified that “per my understanding” the phrase “alkyl sulfonic acids” includes MSA, ESA, MDSA, and EDSA. (Ex. 47 at pp. 92-93.)

198. The LPW anode application, specifically, states: “Hard chromium electrolytes containing alkyl sulfonic acids are known from the German Pat. Appl. 34 02 554.” (Ex. 7, p.2.)

Admitted.

199. The German Pat. Appl. 34 02 554 to which the anode application refers is the German version of the LPW patent application. (Ex. 42, p. 294.)

Admitted.

200. The LPW patent applications identify MDSA as one of the “alkyl sulfonic acids” for use in hard chromium electrolyte solutions. (Ex 1, p. 341; Ex. 2, p. 1, L. 99.)

Atotech objects to the statement in paragraph 200 in that the LPW applications are public records, and therefore any summaries thereof constitute non-factual characterizations. Atotech additionally objects to the ambiguous term “alkyl sulfonic acid.” Subject to this objection, Atotech admits that the LPW patent applications identify MDSA as a “saturated aliphatic sulfonic acid” for use in hard chromium electrolyte solutions. (Ex. 1 at bates number page 341; Ex. 2 at page 1, lines 89-99.)

201. The LPW patent applications have four out of eight examples dedicated to plating bath chemistries containing MDSA as the “alkyl sulfonic acid.” (Ex. 1, pp. 344-46; Ex. 2, pp. 2-3, L. 75-130, 1-19.)

Atotech objects to the statement in paragraph 201 in that the LPW applications are public records, and therefore any summaries thereof constitute non-factual characterizations. Atotech additionally objects to the ambiguous term “alkyl sulfonic acid.”

202. Atotech's Rule 30(b)(6) representative testified that the English translation of the LPW anode application was not provided to the USPTO because:

If we did not supply to the Patent Office an English version, it's because our people did not feel that that was necessary and/or important. We would have because it certainly doesn't – if we thought it was an important thing – you know, it teaches the exact opposite. It supports that ours is an invention on it, one of the things. So we would submit that.

We submitted it fully to the extent that it was, in our opinion, appropriate.

(Ex. 41, pp. 327-28.)

Admitted.

XII. ATOTECH'S RELATED PATENTS

Atotech objects to the heading in that the term "related patents" constitutes a non-factual characterization.

203. U.S. Patent No. 4,786,378 ("the '378 Patent") was issued to Newby on November 22, 1988. (Ex. 9.)

Admitted.

204. The application leading to the issuance of the '378 Patent was filed on September 1, 1987. (Id., p. 1.)

Admitted.

205. The '378 Patent states: "Chromium plating baths using chromic acid as the source of chromium almost invariably employ lead or lead alloy anode." (Id., Col. 1, L. 14-16.)

Atotech admits that the '378 Patent states: "Chromium plating baths using chromic acid solutions as the source of chromium almost invariably employ lead or lead alloy anode." Ex. 9 at col. 1, lines 14-16, emphasis added.)

206. U.S. Patent No. 4,810,337 ("the '337 Patent") was issued to Newby on March 7, 1989. (Ex. 10, p. 1.)

Admitted.

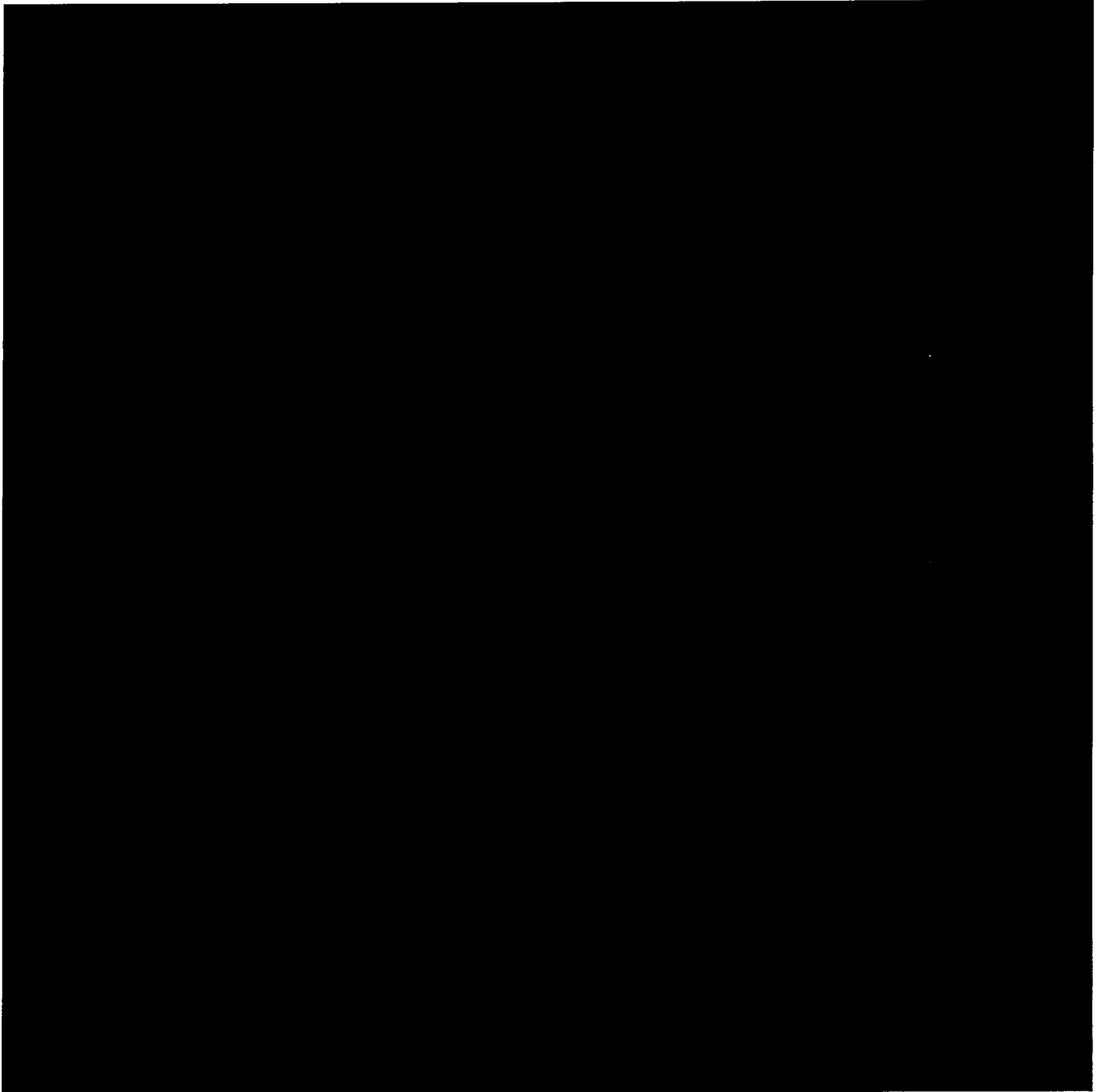
207. The '337 Patent explains that the baths described by the '481 Patent "generally contain chromic acid as the source of chromium and sulfate as a catalyst and almost invariably employ lead or a lead alloy as the anode." (Id., Col. 1, L 23-27.)


Atotech objects to the use of the term "explains" as constituting a non-factual characterization, but otherwise admits that the quoted passage appears in the '337 Patent.

XIII. NEWBY'S MISREPRESENTATION CONCERNING THE NATURE OF HIS DISCOVERY

Atotech objects to the heading in that it is argumentative and constitutes a non-factual characterization and/or legal conclusion that asserts wrongdoing, which Atotech disputes.


A. Impurities in MSA Caused the Lead Anode Corrosion

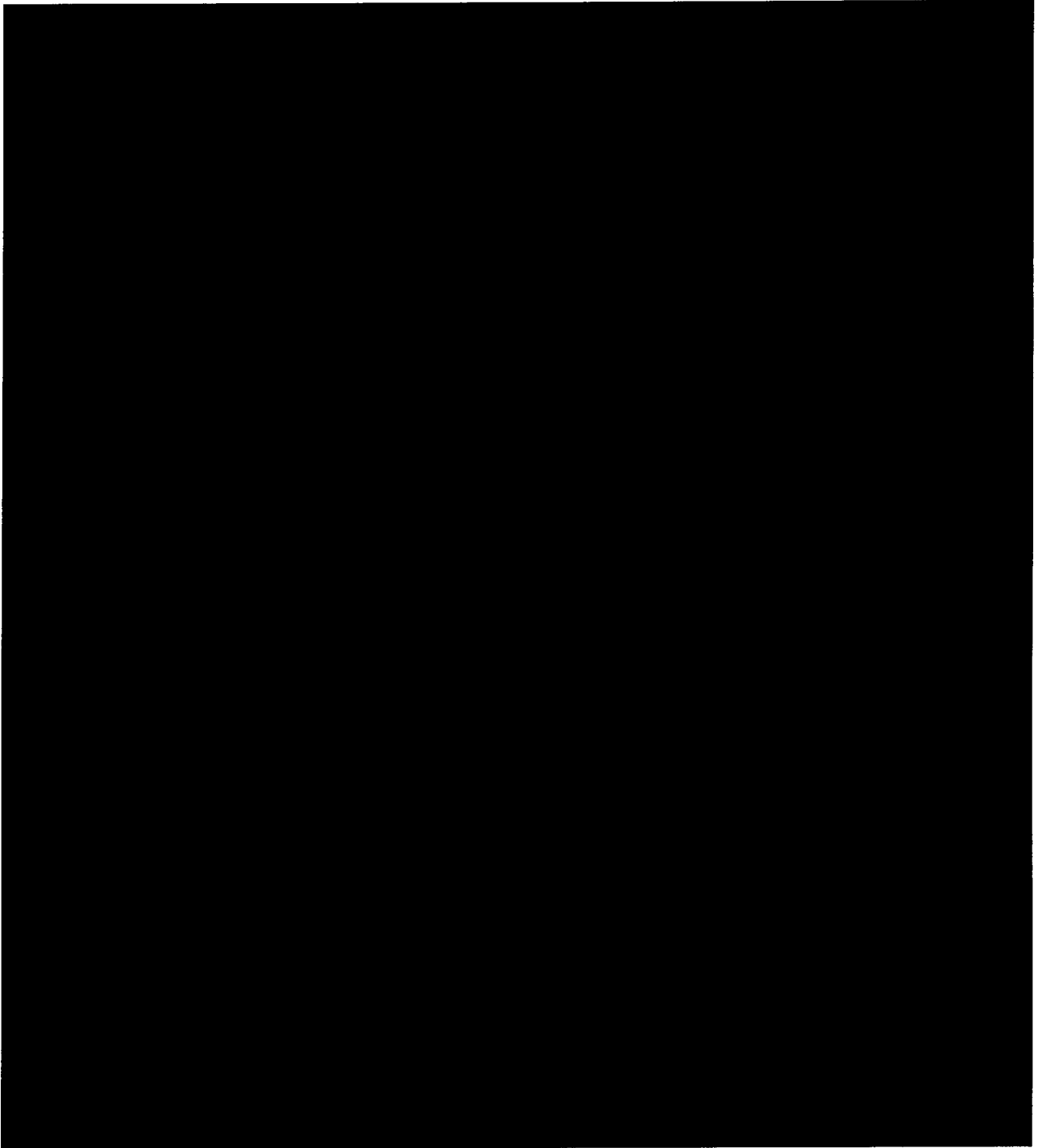


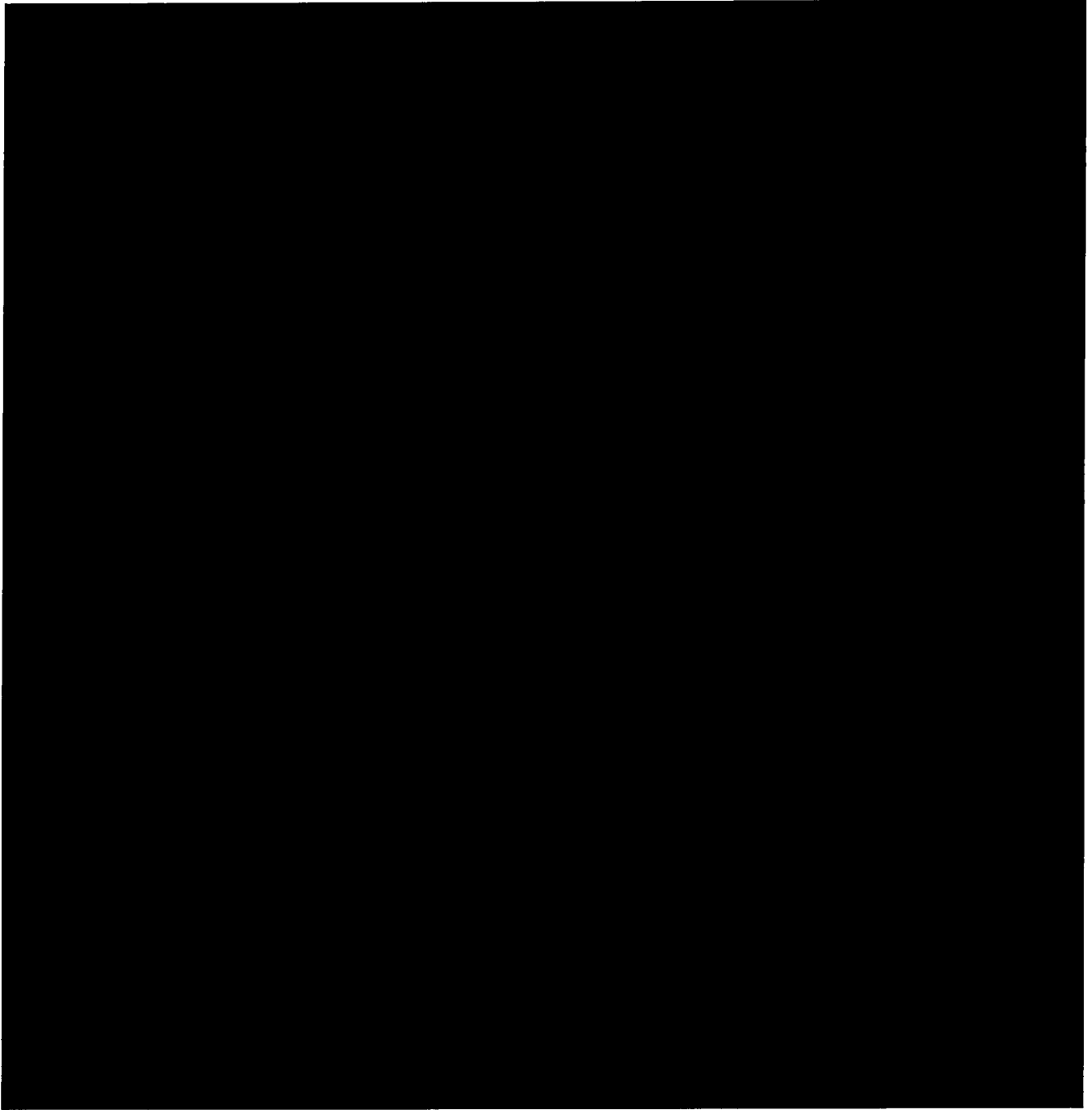


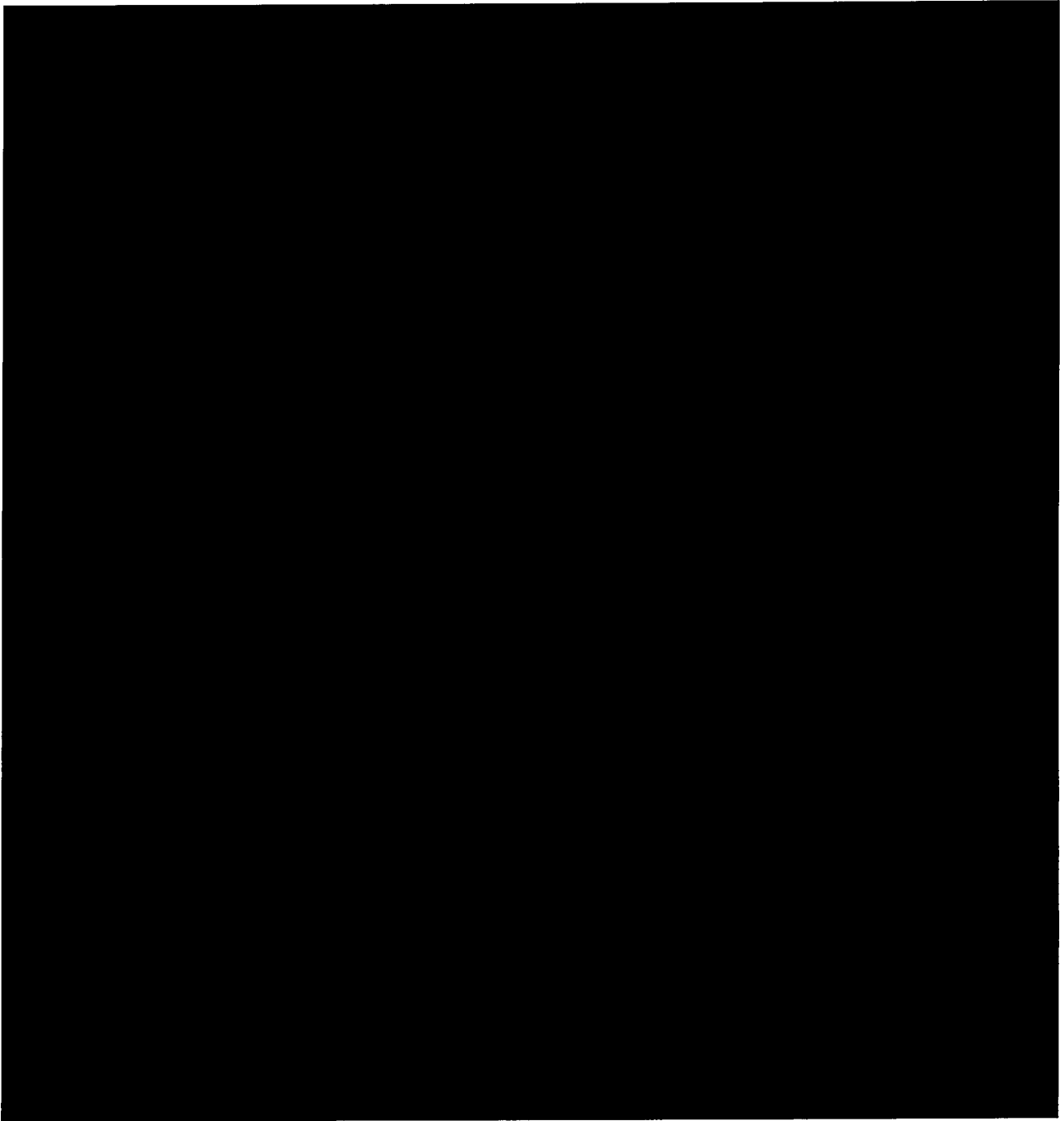
213. Thereafter, Newby applied and secured a patent on the “high current density anodic” technique of purifying the MSA catalyst. (Ex. 10; Ex. 41, pp. 294-97.)

Atotech objects to the statement in paragraph 213 in that it constitutes a non-factual characterization. Subject to the objection, Atotech admits that the application leading to the ‘337 Patent (Ex. 10.) was filed on April 12, 1988.

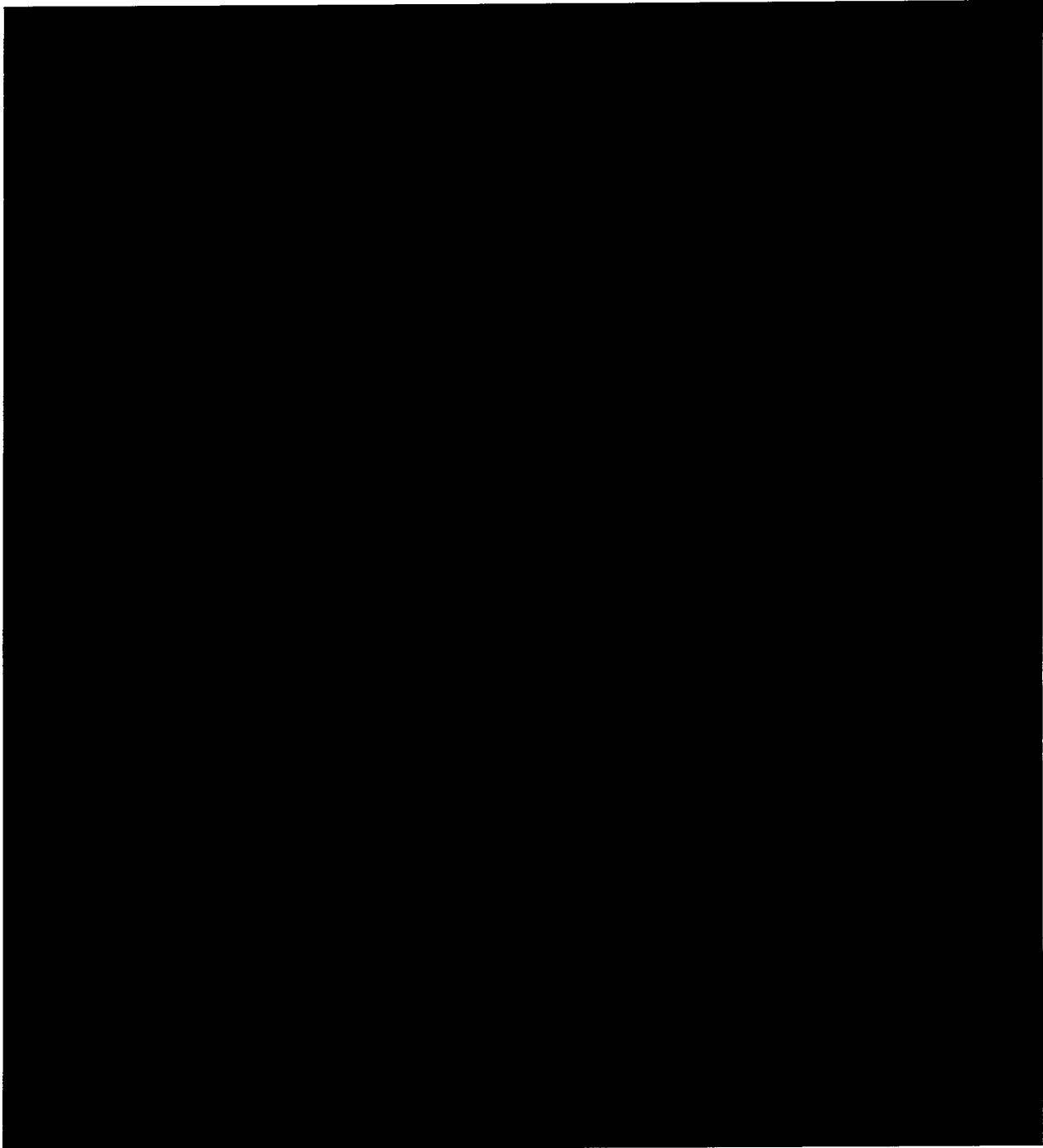


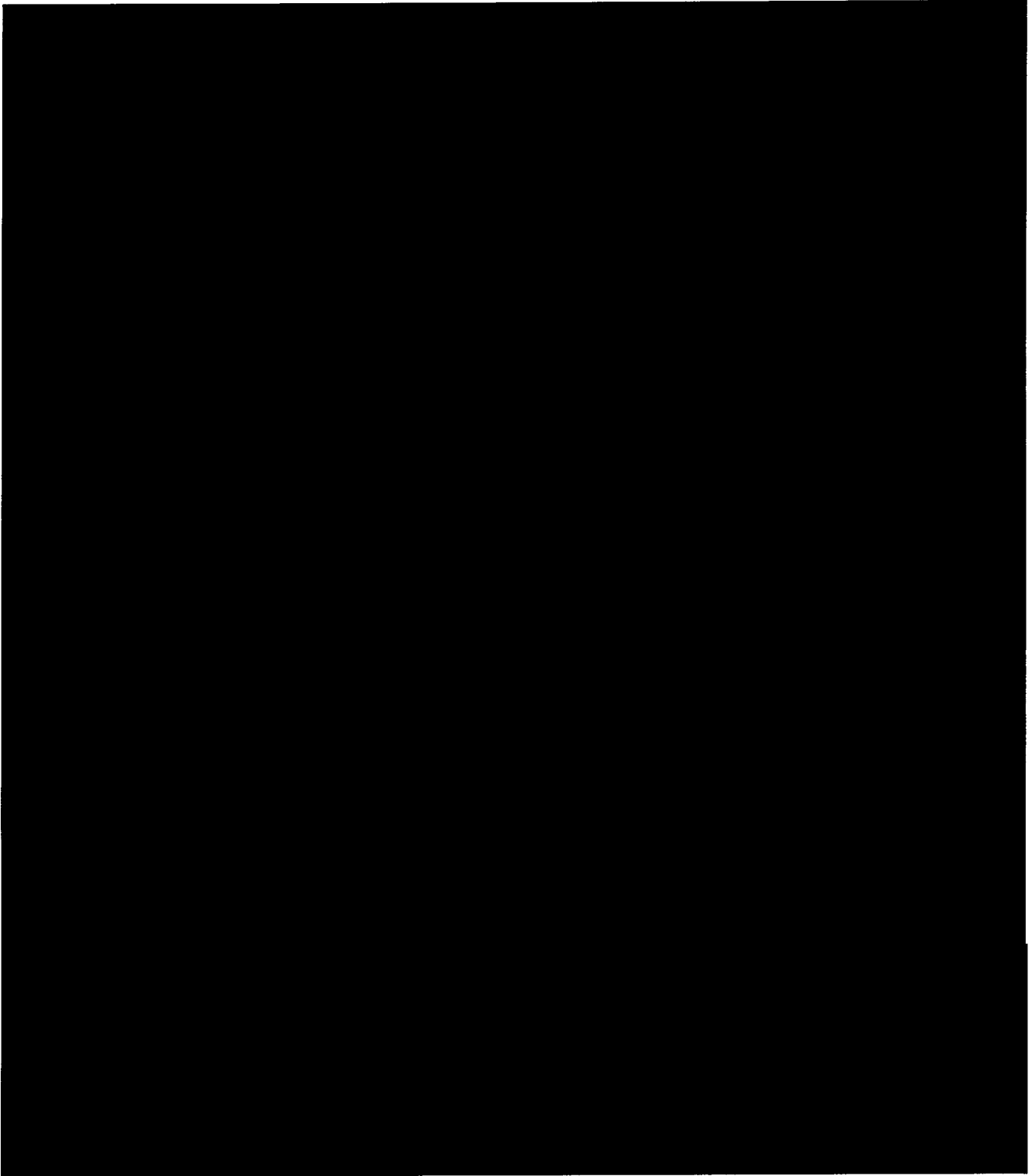


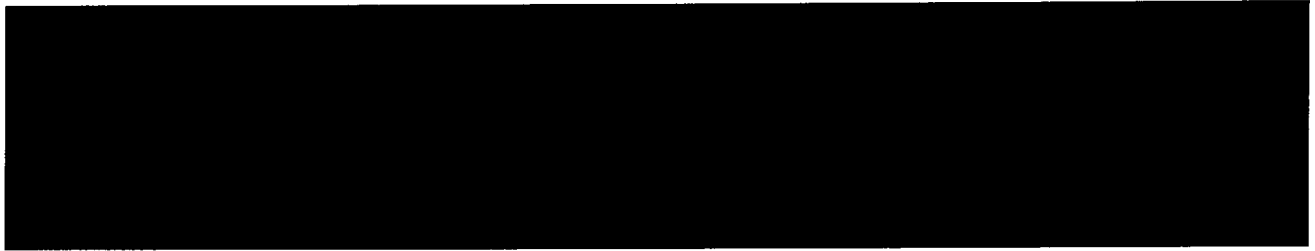




B. A Pure Source of MDSA Was Found







**XIV. ATOTECH'S CLAIM THAT MACDERMID MISAPPROPRIATED
TRADE SECRET FORMULAS**

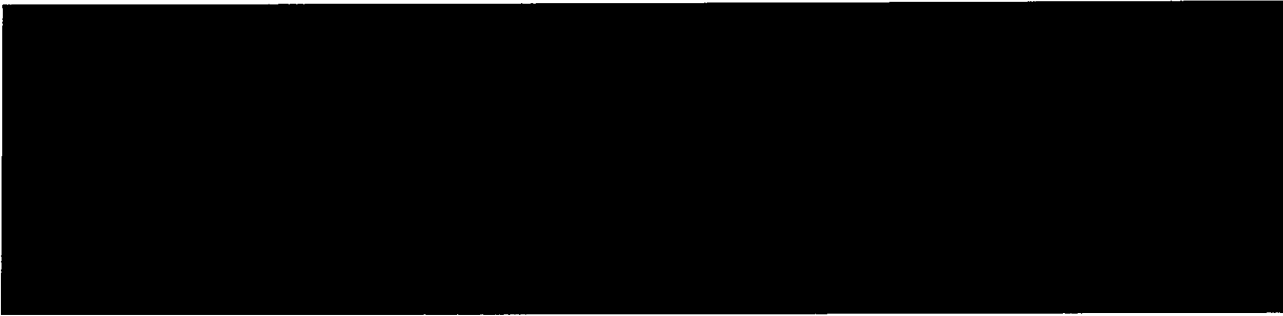


242. MacDermid's operating bath falls within the scope of the teachings of the LPW's patent applications and the expired '481 Patent. (Ex. 8; Ex. 2, Ex. 3, Ex. 4; Ex. 5.)

Atotech objects to the statement in paragraph 242 in that it constitutes a non-factual characterization and/or a legal conclusion. Atotech further objects to the statement in paragraph 242 in that the LPW applications and '481 Patent are public records, and therefore any summaries thereof constitute non-factual characterizations.

244. Atotech's expert did not perform an analysis of MacDermid's ChromKlad 2500 operating bath, and compare MacDermid's operating bath to an operating bath of Atotech's HEEF 25 process. (Ex. 42, p. 302.)

Admitted.



246. MacDermid separates the ChromKlad 2500 operating bath into various products that when mixed together create a make-up plating bath. (Affidavit of J. Cordani, ¶11.)

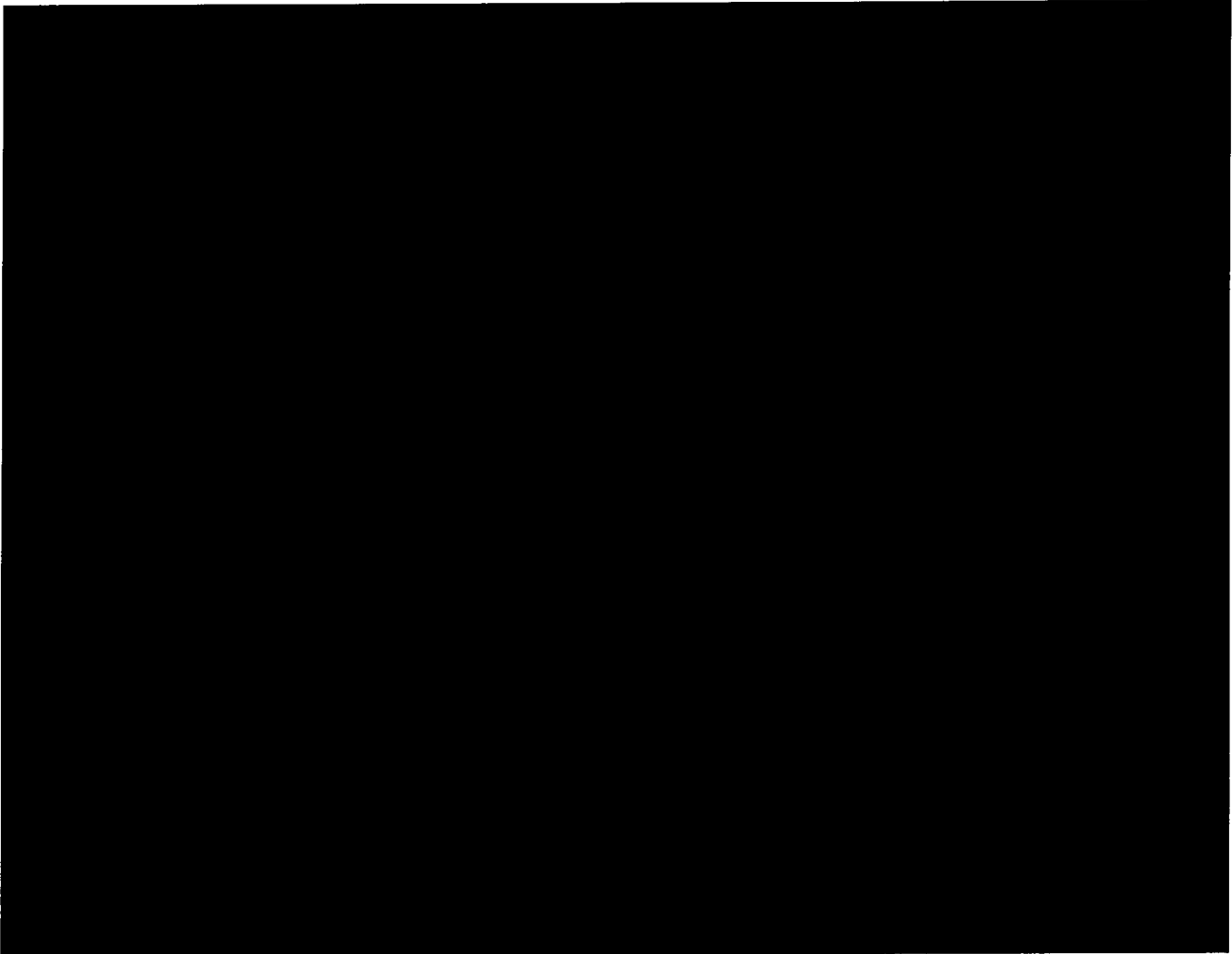
Atotech objects to the statement in paragraph 246 insofar as Atotech lacks first-hand knowledge of the substance of the statement.

247. MacDermid also sells products that are used to replenish the losses of chemicals that result from the plating process; including Chromklad 2500 L. (Id., ¶13.)

Atotech objects to the statement in paragraph 247 insofar as Atotech lacks first-hand knowledge of the substance of the statement but is aware of a replenisher product called ChromKlad 2500 L.

248. Atotech claims that the separation of the plating chemistries into various “components” or products constitutes a trade secret, which MacDermid misappropriated. (Compl. at ¶17.)

Admitted.



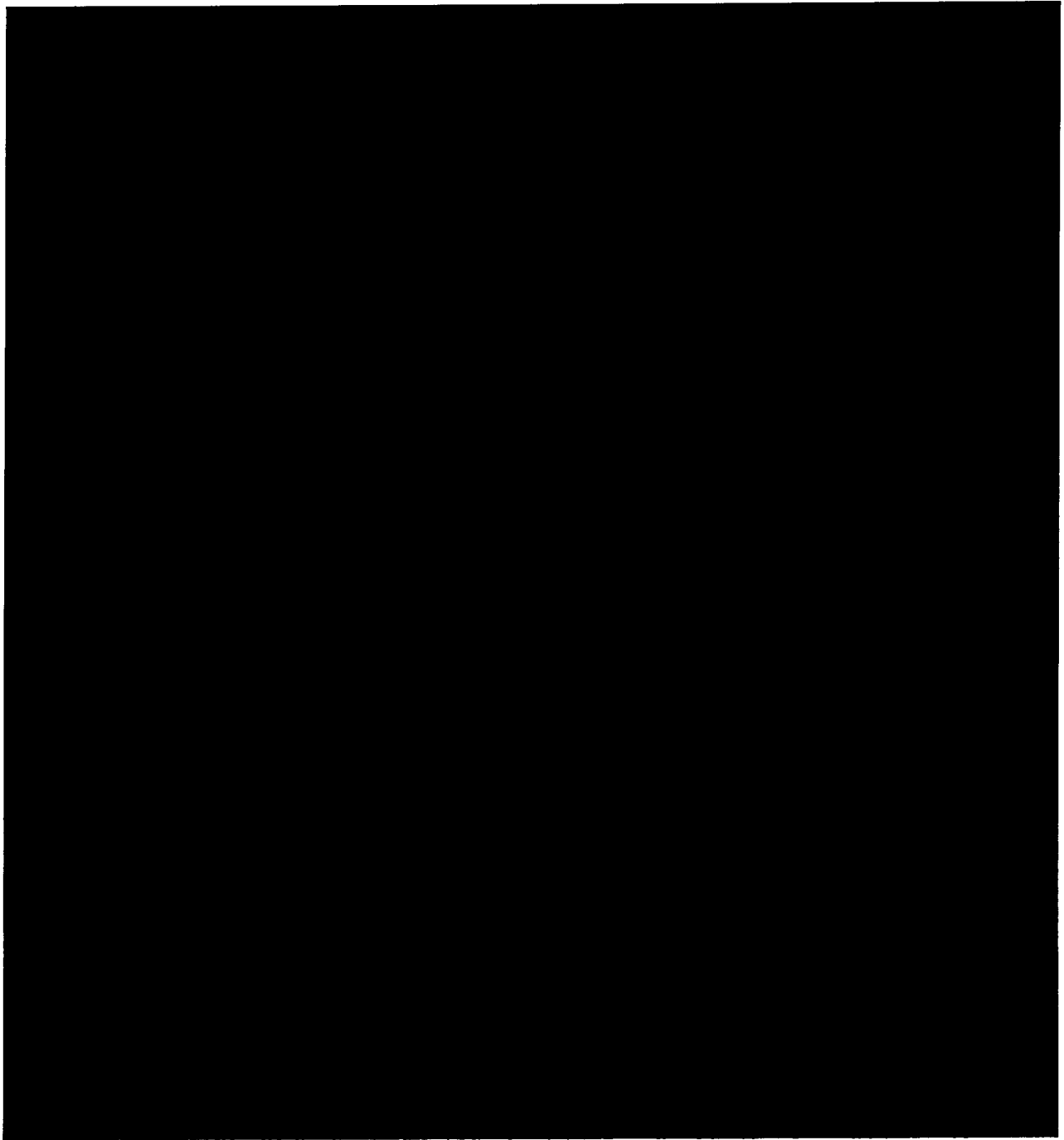
252. The '175 Patent discloses (without claiming) the use of a "replenishment composition for a chromium-plating bath having chromic acid and at least one alkyl-polysulfonic acid." (Ex. 12, Col. 8, L. 16-19.)

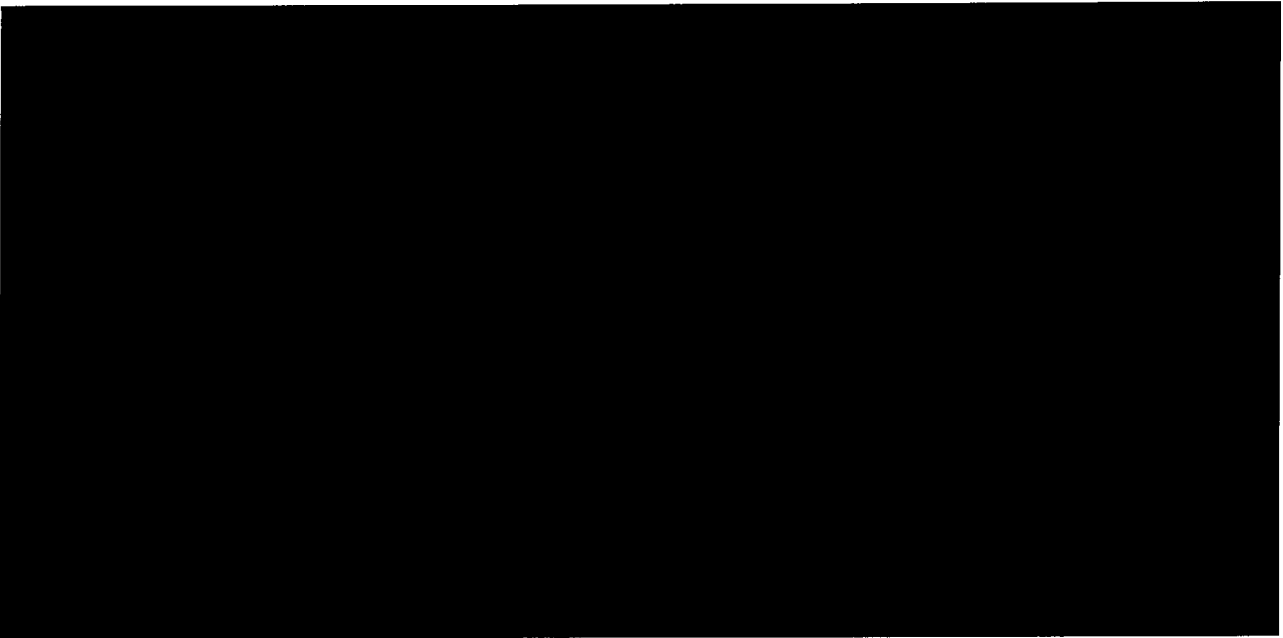
Atotech objects to the statement in paragraph 252 in its use of the phrase "without claiming" insofar as claim interpretation is a question of law. Subject to the objection, Atotech admits that the '175 Patent states "replenishment composition for a chromium-plating bath having chromic acid and at least one alkyl-polysulfonic acid." (Ex. 12, Col. 8, L. 16-19.)

253. Atotech, also, contends that MacDermid misappropriated the formula of one of its replenishment products (HEEF 25 R (500)), when it created ChromKlad 2500 L. (Ex. 40, p. 176.)

Admitted.

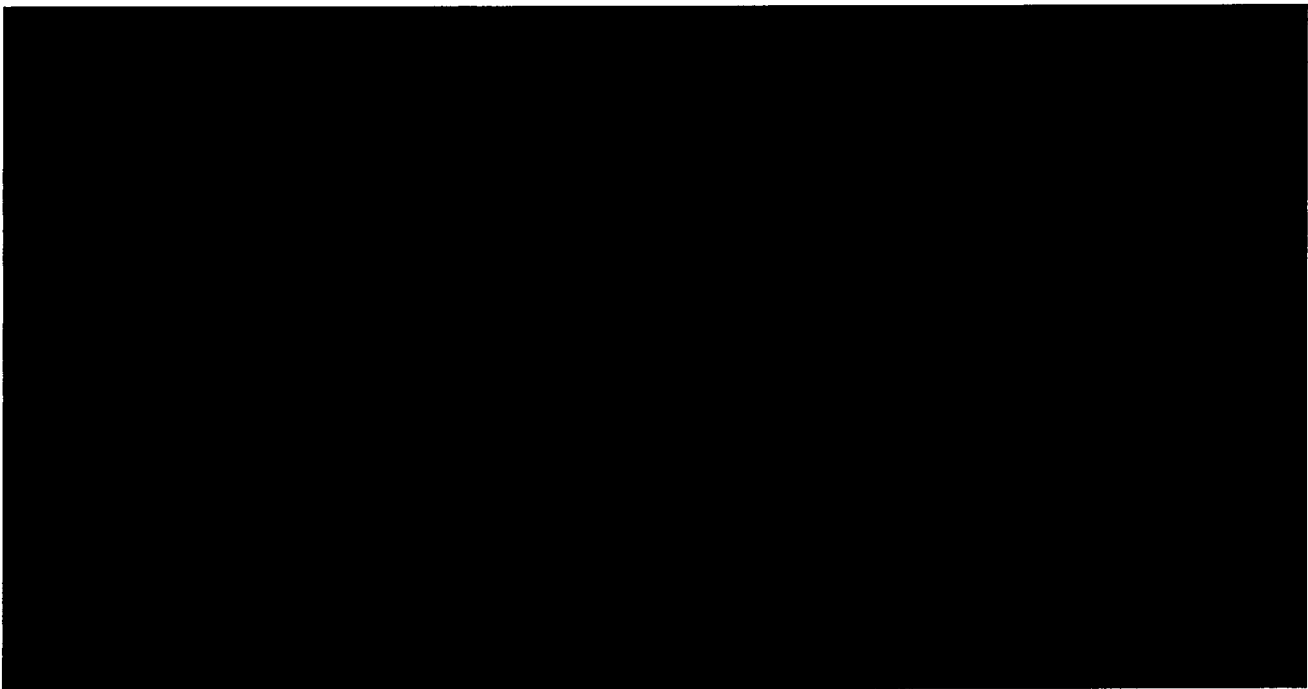


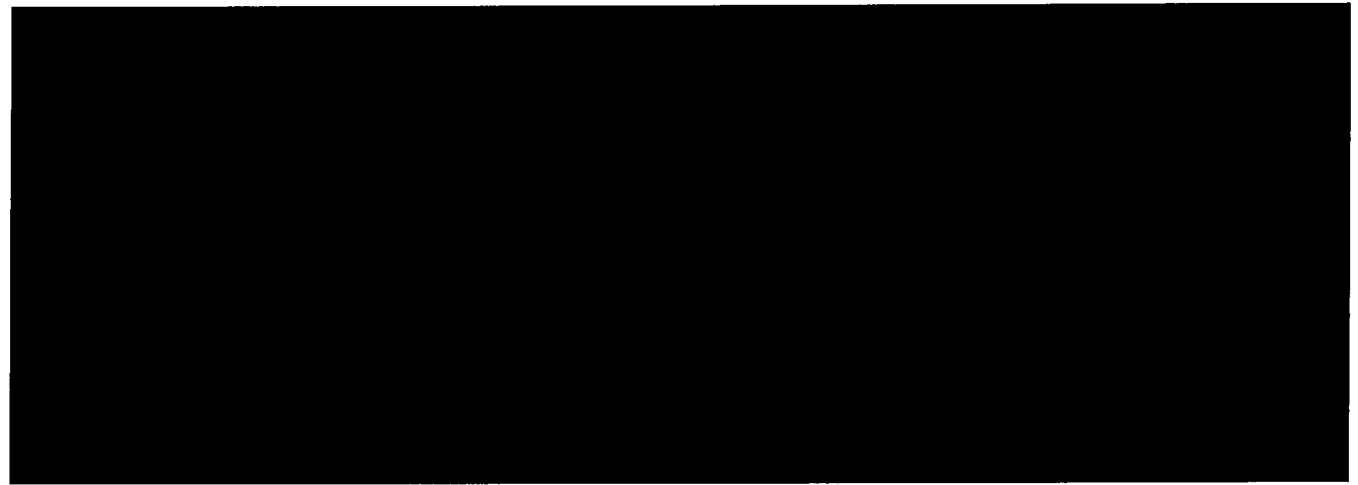
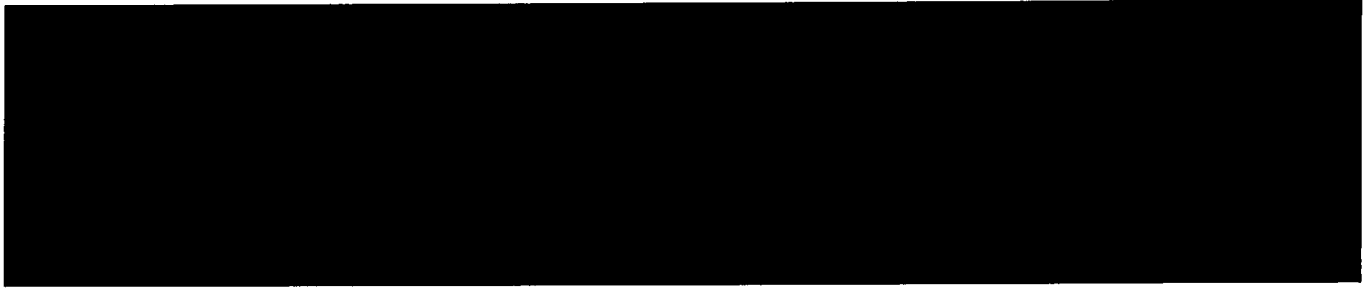




260. Chromklad 2500 C is used to make-up a new operating bath.
(Affidavit of J. Cordani ¶11.)

Admitted.





Respectfully submitted,

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